



INTERNATIONAL SOYBEAN VARIETY EXPERIMENT

FOURTH REPORT OF RESULTS 1976

W.H. Judy and D.K. Whigham



International Soybean Program

INTSOY

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**COLLEGE OF AGRICULTURE
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN**

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Fourth Report of Results

W. H. JUDY and D. K. WHIGHAM

College of Agriculture
University of Illinois at Urbana-Champaign

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International Soybean Program (INTSOY)
College of Agriculture
University of Illinois
113 Mumford Hall
Urbana, Illinois 61801
U.S.A.

Cable address: INTSOY

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FOREWORD

The International Soybean Variety Experiment (ISVEX) was conducted again during the year 1976 by cooperators in many countries throughout the world. In addition, joint variety evaluation trials were organized with the International Institute for Tropical Agriculture (IITA) and with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). The results of all of these variety trials were returned to INTSOY for analysis and are included in this publication.

INTSOY was established at the University of Illinois and the University of Puerto Rico to give leadership within a network of national and international organizations for soybean research and educational work. The objective of this program is to expand the use of soybeans for human food. The geographic orientation is toward tropical and subtropical areas of the world where protein-calorie nutrition problems tend to be concentrated. However, the perspective is world-wide.

ISVEX was initiated in 1973 as the first part of the genetic improvement program of INTSOY. The objectives are to evaluate soybean cultivars (varieties) for wide environmental adaptability and to provide countries with improved cultivars for direct introduction or for use in breeding programs. The response of cultivars is analyzed for high stable yield and other desirable agronomic characteristics. Other important dividends have been obtained through accumulation of more knowledge about the response of soybeans to different management skills, ranges of temperature and day-length, and various soil conditions. With the cumulative results from more growing seasons, the objectives of this trial are being attained. For the first time, multi-year means for characteristics of cultivars can be calculated within and across environmental zones, for geographical areas within zones, and for selected countries. This has improved the capability for expanded interpretation of results and leads to more accurate prediction of the behavior of cultivars under different environmental conditions. The importance of careful cultivar selection and improved management during production and harvesting is clearly demonstrated.

A world-wide variety evaluation program such as ISVEX requires the cooperation and resources of many organizations and individuals. Foremost in importance are those cooperators who conduct the trials. They record data and send them to INTSOY for analysis. The United States Agency for International Development has provided the general program resources to make ISVEX possible. The Food and Agriculture Organization of the United Nations has provided technical supervision and assistance in sending trials to a number of countries. Other international organizations have provided support, especially the United Nations Development Program. The facilities and services, including the Statistical Laboratory, of the Department of Agronomy, University of Illinois at Urbana-Champaign, are gratefully acknowledged.

Leadership in organizing this ISVEX was provided by D. Keith Whigham with the assistance of Robert Dunker. William H. Judy has ably succeeded Dr. Whigham and is giving leadership to ISVEX, SPOT, and SIEVE soybean varietal evaluation trials with the efficient assistance of Henry J. Hill. The varietal development work in Puerto Rico and seed increase for these trials has been provided by E. H. Paschal II. The sincere appreciation of all in the INTSOY network is expressed to the many who have made the variety evaluation program and the results reported in this publication possible.

INTSOY is pleased to add the Fourth Report of Results of ISVEX to the INTSOY Publication Series. The First, Second, and Third Reports of ISVEX are designated numbers 8, 11, and 15 in the Series, respectively.

William N. Thompson
Director
International Soybean Program (INTSOY)

INTERNATIONAL SOYBEAN VARIETY EXPERIMENT
Fourth Report of Results

This publication is the fourth report of results from the International Soybean Variety Evaluation Experiment (ISVEX), organized in 1973 by the International Soybean Program (INTSOY) at the University of Illinois, under a contract with the Agency for International Development, U.S. Department of State.

ISVEX was designed to meet the following objectives:

1. To test the adaptation of soybean cultivars (varieties) under a wide range of environmental conditions
2. To provide research workers with an opportunity to compare local and introduced cultivars
3. To provide a source of new germplasm, which a cooperator may use directly or incorporate into his breeding program
4. To identify areas of the world that have a potential for soybean production
5. To evaluate the response of the soybean to different environments.

MATERIALS AND METHODS - ISVEX SITES

Procedures

Instructions for management and data collection for ISVEX were sent with the seed shipment to each cooperator. Soybean seed for planting was provided to each cooperator in individual row packages. Granular inoculant was provided for distribution in the row with the seed prior to covering the seed with soil. The experiment was designed as a randomized complete block with four replications. Each variety was planted once in each block in a plot which consisted of four rows 5 m long and 60 cm apart. All observations, including the grain yield, were obtained from the two center rows.

It was suggested in the instructions that a trial site be chosen which had an identical crop history and where the soil was well drained. A soil analysis was recommended for determination of pH, organic matter, nitrogen, phosphorus, and potassium. It was recommended that a basal application of 25 kg/ha N, 25 kg/ha P, and 25 kg/ha K be broadcast and worked into the plot.

AUTHORS: W. H. Judy is Associate Professor, Department of Agronomy, INTSOY, University of Illinois, Urbana, Illinois. D. K. Whigham is formerly Assistant Professor, Department of Agronomy, INTSOY, University of Illinois, Urbana; now Associate Professor, Department of Agronomy, Iowa State University, Ames, Iowa.

Sufficient seed was provided to overplant approximately 50%. It was recommended that the plants be thinned soon after emergence to a stand of one plant per 5 cm.

The method of weed control suggested was mechanical or chemical according to the facilities available to the cooperator.

Chemicals were recommended for control of insects.

Cultivars

The pedigrees of soybean cultivars evaluated in the fourth ISVEX during 1976 and early 1977 are described in Table 1. These cultivars were selected for their consistent high yield performance for several years in the U.S. Department of Agriculture Regional Soybean Trials which originate in Lafayette, Indiana, and Stoneville, Mississippi. The entries were selected from U.S. cultivars in order to provide access to adequate quantities of high-quality seed. Certified or foundation seed was purchased from sources in the areas of the United States where each variety was grown. At least one cultivar from each of the maturity groups 00 through IX was selected. There were 20 cultivars retained from the third ISVEX¹ and six new cultivars were added. The cultivars Bonus, Hampton 266A, Hardee, Semmes, and Tracy were deleted, whereas, Bragg, Cutler 71, Essex, Hill, Ransom, and Steele were added.

The cultivars were divided into groups according to their relative maturity and distributed among cooperators according to the environmental zone. Some cultivars were common to more than one zone. The entries Clark 63, Calland, Columbus, Forrest, Williams, and Woodworth were common to all zones. Later maturing cultivars were distributed in tropical zones while earlier maturing entries were included for sites closer to temperate areas (Table 2).

In the instructions for the ISVEX trials it was suggested that the cooperator might wish to substitute one or two local soybean cultivars for those which were supplied by INTSOY. Many cooperators did substitute and the data on the performance of these cultivars may be observed in the table showing the analysis of data for that particular location.

Experiment Sites

The experiment sites were divided into environmental zones which were defined according to latitude and altitude. Separating the trial sites by latitude permits evaluation of cultivars under similar conditions of day length. Separation according to altitude permits evaluation under similar conditions of day- and nighttime temperatures. There was some variation

¹

Whigham, D. K., and W. H. Judy, "International Soybean Variety Experiment Third Report of Results," INTSOY Series No. 15, University of Illinois at Urbana-Champaign, 1978, 369pp.

within each zone in temperature, moisture, and solar radiation. The limits of each of the 13 zones and the number of sites are shown in Table 3. The environmental zones were defined by each 10° increment in latitude from the equator and according to three altitude ranges divided 0 - 500 m, 501 - 1000 m, and higher than 1000 m.

The environment dictated the optimum planting time for each site. Plantings were made throughout the calendar year. The first planting was made on March 9, 1976 and the last planting on March 14, 1977. At several sites, the trial was planted more than once during the year.

The Fourth ISVEX was dispatched to 292 sites in 84 countries. Data were returned from 125 sites of which 25 were in Africa, 43 in Asia, and 21 in South America. Useful data were obtained at 114 sites in 58 countries which are listed in Table 4. Figure 1 shows the locations of these countries. The experiment was tested under a wide range of environmental conditions which are represented by sites which range in latitude from 33° South in La Platina, Chile to 52° North in Radzikow, Poland and by a range in elevation from 1820 m in Leku, Ethiopia to -68 m in Deir Alla, Jordan. However, 63 trials were located within 20° of the equator and at altitudes lower than 500 m.

Data Collected

Data were reported for each plot by cooperators as follows:

Yield: Weight in grams of clean, dry grain from 5 m of the two center rows which is a harvest area of 6 m^2 .

Days to flower: Days from date of emergence to date when 50% of the plants have flowered.

Days to maturity: Days from date of emergence to date when 95% of the pods are ripe.

Nodule number: The number of nodules on the root system at the time when the first flowers appear and a second count of nodules three weeks after date of first flowering.

Nodule dry weight: Dry weight in grams of the nodules associated with the root system at the time first flowers appear and again three weeks after first flowering.

Plant height at maturity: Height in centimeters from the ground surface to the top of the main stem at maturity.

Lodging score: Estimated rating of lodged or down plants on a scale of 1 (all erect) to 5 (all down) as observed at time of maturity.

Shattering score: Estimated rating of the amount of shattering of seed from the pods on a scale of 1 (no seed shattered) to 5 (over 50% shattered) at the time of maturity.

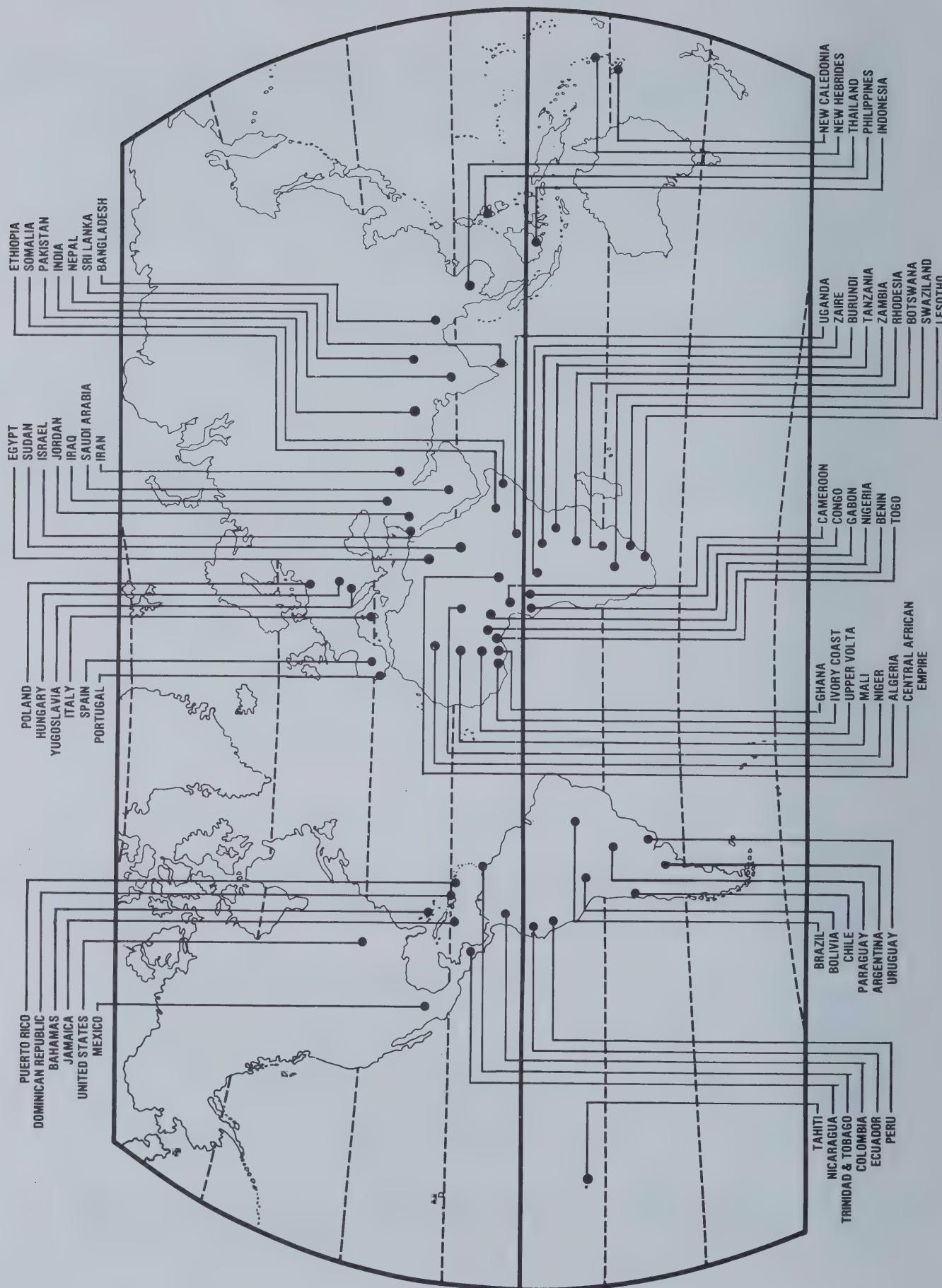


Figure 1. Countries from which data were collected in the fourth International Soybean Variety Evaluation Experiment.

Plants harvested: Total number of plants harvested from the two center rows of each plot.

Pods per plant: Average number of pods per plant at time of harvest.

Seed weight: Weight in grams of 100 randomly selected seeds from the dried, cleaned grain.

Quality of seed: Estimated rating of seed quality after harvest considering the amount of wrinkling, defective seed coats, off-color seed, and moldy or rotten seed according to a scale of 1 (very good quality) to 5 (very poor quality).

Disease rating: Estimated rating of the severity of the three most serious diseases attacking soybeans in the trial according to a rating scale of 1 (highly resistant) to 5 (leaves covered with disease).

Statistical Analysis of Data

Analysis of variance was completed for variables for which data were reported from more than one replication of the trial at each site during the same season. Means, standard error of a cultivar mean, coefficient of variation, and the least significant difference (LSD) of cultivar means at the 5% level are reported for analyzable variables from each experiment site. Correlation coefficients were computed between all traits reported.

Protein and oil contents were determined on the dry weight basis by a near-infrared light reflectance instrument in the Department of Agronomy at the University of Illinois. The analyses were made from one sample of each cultivar which was composited across replications at each trial site by the cooperator who returned the sample to INTSOY for analysis.

A combined analysis was prepared for all trial locations within an environmental zone where there were five or more trials. In some cases, a combined analysis was also prepared for a restricted geographical area within an environmental zone where there was a sufficient number of trial sites available.

MATERIALS AND METHODS - JOINT INTSOY/IITA SITES

Procedures

This publication also includes the report of results from the first joint soybean variety evaluation experiments which were conducted by INTSOY and the International Institute for Tropical Agriculture (IITA) which is located near Ibadan, Nigeria. This joint trial was organized by INTSOY and IITA during 1975 in order to expand the range of germplasm available to cooperators and to reduce confusion of efforts by cooperators who might be expected to conduct both the INTSOY and IITA soybean variety trials. These joint INTSOY/IITA trials were sent to cooperators identified by both organizations in Africa which were located between the latitudes of 20° N and 20° S. This region primarily encompasses the tropical rain forest conditions.

The trials were conducted similar to the ISVEX trials except that eight varieties were supplied by INTSOY and eight varieties by IITA. Otherwise, procedure and instructions for conducting the trial were the same.

Cultivars

The soybean cultivars tested in the first joint INTSOY/IITA trial during 1976 are listed in Table 2. Those entries with the TGx and TGm prefixes were supplied by IITA. INTSOY supplied eight cultivars normally distributed to environmental zones I, II, and IV. Those included Bossier, Clark 63, Cobb, Davis, Forrest, Improved Pelican, Jupiter, and Williams. Of the eight entries Clark 63, Forrest, and Williams were also common to all ISVEX environmental zones. No substitution was suggested for any of the 16 countries.

Experiment Sites

Seventy-nine INTSOY/IITA trials were dispatched to cooperators in African countries located in environmental zones I through VI. The experiment was tested under many environmental conditions as represented by the range in latitude from 16° S in Magoye, Zambia to 13° N in Maradi, Niger and by the range in elevation from 1187 m in Kisanga, Zaire to 0 m in Abidjan, Ivory Coast.

Data Collected

The data which were reported for each plot by the cooperators were the same as that for the ISVEX trials.

Statistical Analysis of Data

The analysis of variance was completed for parameters which are reported according to the same method as for the ISVEX trials. Protein and oil contents were also determined and are reported. A combined analysis was prepared for all of the trial locations where there were five or more trials.

MATERIALS AND METHODS - JOINT INTSOY/SEARCA SITES

Procedures

The results from the joint INTSOY/SEARCA (Southeast Asia Regional Center for Graduate Study and Research in Agriculture) soybean variety trials are included in this publication. The procedures are similar to those followed by INTSOY/IITA cooperators.

Cultivars

SEARCA supplied eight cultivars and INTSOY supplied nine (Table 2). The cultivars Calland, Clark 63, Columbus, Forrest, and Williams were common to all ISVEX and INTSOY/SEARCA sites.

Experiment Sites

The INTSOY/SEARCA trials were dispatched to about five cooperators in Asia. Usable data were returned from one site.

Data Collected

The data which were reported for each plot by the cooperator were similar to that in the ISVEX trials.

Statistical Analysis of Data

The analysis of variance for parameters is reported according to the same method as the ISVEX trials.

RESULTS AND DISCUSSION - ISVEX SITES

Summary mean values of the parameters observed for single and multiple years and for selected geographical areas are presented in Tables 6 through 53. Individual site values which were obtained during the conduct of the Fourth ISVEX during 1976 are reported in Tables 54 through 204.

Tables with data for individual sites include agronomic, seed, and other descriptive information which identifies the location, environment, and management. Information is also included for the local cultivars which were tested. These tables are arranged by region, country, and site.

Summary tables have been prepared for environmental zones which contain five or more sites. Combined analyses were also prepared for selected geographical regions and countries. Summary tables were prepared for cultivars which were common to trials in 1974, 1975, and 1976 and for cultivars common in 1975 and 1976.

Discussion of results will concentrate on parameters of cultivars and on correlations between parameters which are significantly different. "Environmental zones" as described in Table 3 will be hereinafter referred to simply as "zones."

Yield

A summary of the yield in tropical zones I and IV is presented in Table 6. There were not sufficient sites in zone II to prepare a combined analysis. Comparable yields were obtained in both zones but the ranking of cultivars is considerably different. Davis was the highest yielding cultivar in both zones with 2525 kg/ha in the 15 sites below 500 meters altitude and 2466 kg/ha at the 16 sites located at the same altitude but between 11-20° latitude. The top five yielding cultivars in zone I included Davis followed by Improved Pelican, Forrest, Bragg, and Jupiter. In zone IV, Davis was followed in yield by Calland, Forrest, Cobb, and Williams. There was no significant difference in yield among the top six cultivars in zone IV.

In Tables 32 and 33, two-year and three-year means are presented for zone I. The same six cultivars appeared both years but in a different ranking. Davis and Jupiter were the two highest yielding cultivars in both the two-year and the three-year summaries. For 1975 and 1976, these two varieties were followed by Forrest, Improved Pelican, Williams, and Bossier, whereas, in the three-year mean Improved Pelican moved to third place and was followed by Bossier, Forrest, and Williams. There was less than 10% difference among the top five cultivars.

The combined analysis for Asian sites in zone I is reported in Table 47. Among these twelve sites, Davis was the highest yielding at 2337 kg/ha followed by Forrest, Improved Pelican, Williams, and Bragg. Ten of the zone I sites in Asia were located in Sri Lanka. Again, Davis was the highest yielding cultivar (2726 kg/ha) and Forrest was second, followed by Williams, Bragg, and Bossier, while Improved Pelican dropped to sixth place (Table 50).

The two-year and three-year means for zone IV are reported in Tables 35 and 36, respectively. The cultivar ranks and yields were the same for both summaries except for the absence of Cobb from the three year summary. Davis, Forrest, Bossier, Williams, and Clark 63 made up the top five group.

The combined analyses of yield for zones III, VI, and VII are presented in Table 16. The cultivar Hill moved to first place with 1990 kg/ha for the six sites. Davis and Forrest were second and third ranked in yield while Cobb moved into fourth place, followed by Improved Pelican and Bossier. The rank of yields in zone VI and VII was considerably different from zone III. For the five sites above 1000 m in zone VI, Davis was again first with 3207 kg/ha, but was followed by Essex, Calland, Columbus, and Ransom. For the 16 sites in zone VII, Davis was first with 2371 kg/ha and was followed by Ransom, Bossier, Forrest, and Bragg. The mean grain yield for all cultivars in zone III, VI, and VII was 1535, 2809, and 2101 kg/ha, respectively.

In the two-year mean for zone III shown in Table 34, Davis was the highest yielding followed by Forrest, Bossier, Williams, and Improved Pelican. The 1976 and the two-year mean yields were almost exactly the same. There were not sufficient sites in zone III in 1974 to obtain a combined analysis for that year, so a three-year summary could not be prepared. There were not sufficient sites in zone VI in 1974 or 1975 to prepare a combined analysis.

The two-and three-year means for zone VII are presented in Tables 37 and 38, respectively. The relationship of Davis, followed by Bossier, Forrest, Williams, and Clark 63 was the same for both summaries, but the mean yield over three years was 15 percent lower than the two-year mean.

There were six sites in zone VII in 1976 in Asia and Oceania which could be combined. Williams was the highest yielding cultivar at 1964 kg/ha, followed closely by Davis, Columbus, Forrest, and Clark 63 (Table 49). Williams flowered and matured earlier and did not grow as tall as the other four top varieties, but it was still able to produce a comparable yield. The four sites in Pakistan were combined separately in Table 51.

Ransom produced the highest yield at 2526 kg/ha. There was no significant difference among the top five which included Bragg, Bossier, Davis and Pickett 71.

There were four sites in zone III in Ethiopia which were combined (Table 52). Hill produced the highest yield of 2125 kg/ha, followed closely by Davis. Essex, Forrest and Columbus rounded out the top five yielding varieties in these high altitude (>1000 meter) sites.

There were not sufficient sites in zones VIII and IX to obtain a reliable estimate of yields in a combined analysis.

In zone X there were eight sites which could be combined and these data are reported in Table 25. There was no significant difference among the 12 cultivars represented, but the yield of seven entries exceeded 3000 kg/ha and the yield of the top cultivar, Williams, was 3324 kg/ha.

Among zones where a combined analysis could be prepared, the highest mean yields were obtained in zone X ($31\text{-}40^{\circ}$ latitude, <500 m altitude). However, in zone VI ($11\text{-}20^{\circ}$ latitude, 1000 m altitude), the mean yield of 2809 kg/ha was only 6% less than in zone X. Yields in zones I, IV, and VII exceeded 2000 kg/ha. The highest mean cultivar yield (3324 kg/ha) for combined sites was produced by Williams. Sites near the equator and above 1000 m altitude produced the lowest mean yields.

The highest yield produced by an individual cultivar at any one site was Pickett 71 where 6535 kg/ha were obtained. There was one site which reported a yield higher than 6000 kg/ha; it was Deir Alla, Jordan. Five sites reported yields greater than 5000 kg/ha. There was a total of 15 sites with yields greater than 4000 kg/ha. These included four sites in South America, three sites in Africa, and two sites in Asia.

Days to Flower

These data represent the number of days from emergence to that time when 50% of the plants have flowered. As a particular cultivar is moved into an environment where the day length becomes shorter, the time between emergence and first flowering decreases which means that the plants are smaller both when they flower and when they mature.

There was little difference between mean days to flowering of cultivars with similar maturity when grown at sites in zone I ($0\text{-}10^{\circ}$ latitude, 0-500 m) and zone IV ($11\text{-}20^{\circ}$ latitude, 0-500 m) as reported in Table 8. However, there was an increase in days to flowering between zones I and III and between zones IV and VI (Tables 8 and 18). This suggests that temperature change (altitude) affects days to flowering more than does day length (latitude) at latitudes less than 20° .

Williams, Calland, Clark 63, and Woodworth were all among the earliest flowering cultivars in zones I, III, IV, VI, and VII. Jupiter and Improved Pelican were the latest to flower. A group which was moderately late included Davis, Bossier, Cobb, Bragg, Forrest and Hill.

Mean days to flower of cultivars grown in zone X ($31\text{-}40^{\circ}$ latitude, 0-500 m altitude) are reported in Table 25. The mean for all cultivars (37 days) was only 4-8 days later than zones I, IV, and VI, but 5-15 days earlier than zones III and VII. The earlier group included Hark, Steele, Corsoy, Wells, Beeson, and Amsoy 71; whereas, the later group included Woodworth, Clark 63, Williams, Calland, and Cutler 71.

Two-year and three-year means for cultivars in zone I (Tables 32 and 33), zone IV (Tables 35 and 36), zone VII (Tables 37 and 38), and X (Table 39) were almost exactly the same as 1976 data. Two-year means for zone III (Table 34) indicate that cultivars matured slightly earlier in 1976.

Days to Harvest

Days to harvest is defined as the time from emergence to the growth stage when 95% of the pods are mature. It is useful to consider not only days to flowering and days to harvest but also the time interval between flowering and maturity. The range in mean days for all cultivars from flowering to maturity among all zones (Tables 9, 19, and 25) was 63-77 days whereas the range from emergence to flowering was 29-52 days and from emergence to maturity was 92-124 days.

The late maturing cultivars in zones I and IV (Table 9) and zones III, VI, and VII (Table 19) included Jupiter and Improved Pelican. Davis, Bragg, Bossier, Cobb, Ransom, Forrest, and Pickett 71 fell into the moderately late group. Williams, Calland, Clark 63, Woodworth, and Hill matured earliest.

In zone X (Table 25), the earlier maturing group included Steele, Hark, Hodgson, Corsoy, Wells, and Woodworth. The later maturing cultivars were Cutler 71, Clark 63, and Calland.

These data for zones I, IV, VII, and X were consistent with two-year means reported in Tables 32, 35, 37, and 39, respectively, and three-year means for zones I, IV, and VII reported in Tables 33, 36, and 38, respectively. However, over the two years, cultivars in zone III were reported to mature slightly later (Table 34) than in 1976.

Nodule Number and Nodule Weight

The number of nodules which form on the roots of soybean plants is an indication of the presence and relative activity of the strains of rhizobia which are present in the soil and those added through the inoculum. Nodule weight is an indication of nodule size as well as quantity. Usually, larger nodules are more active in fixing nitrogen. By taking nodule data at two stages of growth, an estimate of the persistence and effectiveness of the rhizobia strains can be estimated. Observations on nodulation during early growth gives an indication of the efficiency of inoculum added to the soil. Nodule activity during late flowering and early pod fill usually affects yield of beans.

Data on nodule number and weight for ten plants at two stages of plant growth are reported in Tables 40 and 42-46. Correlations between yield and

these parameters have also been included. Nodule number almost doubled from the first to second time of sampling for all zones except III (Table 42), where the number remained almost constant. In zone III, nodule weight decreased by 50%. In other zones, nodule weights increased 3-5 times.

At the early growth stage, nodule number ranged from a low of 55 for Calland in zone VII (Table 45) to a high of 186 for Ransom in zone III. The weight of nodules ranged from 0.27 g for Bragg in zone I (Table 40) to the high of 3.54 g for Bossier in zone III. Correlations with yield are inconsistent except in zones VI (Table 44) and VII where they are positive and significant.

At time of second sampling, the fewest nodules were observed on Woodworth (78) in zone VII and the most on Bragg (307) in zone VI. Nodule weights ranged from a low of 0.98 g on Hill in zone VII to a high of 4.00 g on Davis in zone VI.

Correlations between nodule number and nodule weight were positive in all zones at the second sampling. The highest correlations between nodule number and yield were observed in zones IV (Table 43), VI, and X (Table 46). The highest correlations between nodule weight and yield were found in zones III, VI, and VII.

Plant Height

The tallest cultivars in zones I and IV (Table 10) were Improved Pelican at 74 and 86 cm, respectively, and Jupiter at 68 cm. The mean for all cultivars in those zones was 45 and 48 cm. Davis, Forrest, Bossier and Hill were the shortest in zone I, ranging from 33 to 36 cm. In zone IV, Pickett 71 and Bossier were shortest at 31 and 36 cm. The correlation between yield and plant height (0.48) was positive and significant.

Plants tended to grow taller with an increase in latitude at altitudes below 500 m. Plant height was 45 cm in zone I, 48 cm in zone IV, and 51 cm in zone VII (Table 20). The difference in height between various altitudes within zones is inconsistent. Plants were shorter in zone III (Table 20) than in zone I, but slightly taller in zone VI (Table 20) than in zone IV. The shortest cultivar in zone III was Pickett 71 at 30 cm which grew 36 cm tall in zone VI. Davis grew 40 cm tall in zone III but 66 cm tall in zone VI, where it was the next to the tallest cultivar after Improved Pelican (96 cm). Improved Pelican at 71 cm was also the tallest cultivar in zone III. The range in plant height in zone VI was from 36 cm for Pickett 71 to 96 cm for Improved Pelican.

There was almost a doubling in height of the cultivars between zone VII and zone X (Table 25). The mean for zone X was 85 cm compared to 51 cm for zone VII. The range in height in zone X was from 70 cm for Hodgson to 100 cm for Cutler 71.

The trend in plant height among zones for multi-year means in Tables 32-39 was comparable to 1976 data. In zone I, the three-year mean was 48 cm compared to 1976 data of 45 cm; in zone IV, 42 cm compared to 48 cm; in

zone VII, 54 cm compared to 51 cm; and, in zone X, 81 cm compared to 85 cm.

Lodging

The amount of plant lodging is generally closely associated with plant height and with population. In 1976, there was a positive and significant correlation between plant height and lodging. There was very little difference in mean lodging scores for all cultivars among zones I, III, IV, VI, and VII in Tables 11 and 21. However, there were some differences among cultivars within zones. In zone I, Improved Pelican and Jupiter, the tallest cultivars, exhibited the greatest amount of lodging. The same trend carried through zones III, IV, and VI for Improved Pelican. Several cultivars had very low lodging scores. Among these were Davis, Forrest, Bragg, Williams, Bossier, Hill, Ransom, and Pickett 71. In zone X (Table 25), moderate lodging was reported for Amsoy 71, Beeson, Calland, Cutler 71, and Clark 63. Where heavy lodging occurs, lower yields are expected. However, correlations between lodging and yield in the Fourth ISVEX were not highly positive which indicates that lodging was not a serious problem.

Shattering

Where shattering is excessive, yields are expected to be lower. Mean shattering scores for individual and all cultivars within zones were low in zones I, III, IV, VI, and VII (Tables 12 and 22). There was no significant difference between varieties within any of these zones. This same situation occurred also in zone X (Table 25). Therefore, shattering did not appear to be a serious problem among the cultivars tested in any of the zones during 1976.

Pods Per Plant and Seed Weight

The number of pods produced per plant and the weight of a given number of seeds are both parameters which are usually correlated with grain yield. Mean numbers of pods per plant along with the correlation of this parameter with other observations are presented in Tables 40 and 42-46 for zones I, II, IV, VI, VII, and X. There was a positive and significant correlation between yield and pods per plant. However, the mean number of pods per plant was not always directly associated with changes in yield of beans among zones. The lowest number of pods per plant was in zone III with 19.8 where the lowest yield (1535 kg/ha) was obtained. However, the highest mean yield for all cultivars (2809 kg/ha) was obtained in zone VI where the number of pods per plant was 21.7. In zone I there were 23.5 pods per plant with a yield of 2271 kg/ha; in zone VII, 25.0 pods per plant with a yield of 2101 kg/ha; and in zone IV, 26.4 pods per plant with a yield of 2113 kg/ha.

The association of pods per plant and plant height is more highly correlated than is the relationship between pods and yield except in zone X

(Table 46). Yield and pods per plant were less highly correlated in zone X than in other zones also.

Yield and 100 seed weight were highly and positively correlated except in zone III (Table 42). The weight of 100 seeds ranged from 15.5 g in zone VII to 21.8 g in zone III (Tables 13, 23, and 25). In zone I, the range in seed weight was from 14.4 g for Improved Pelican to 18.7 g for Davis which had the highest yield. In zone IV, the range in weight was from 12.8 g for Improved Pelican to 18.7 g for Williams but Improved Pelican had a slightly higher yield than Williams. Cultivars had higher mean seed weight in zone III than in other zones; the range was from 16.1 g for the cultivar Forrest to 30.9 g for Ransom. However, the yields were lower in zone III than in any other zone. The lowest seed weight was obtained in zone VI with Improved Pelican (16.0 g) and the highest with Calland (22.2g). The highest yield in this zone was obtained with Davis which had a seed weight of 21.3 g. In zone VII, the range was from 13.5 g for the cultivar Forrest to 17.2 g for Calland. The highest yielding variety Davis had a seed weight of 16.1 g.

The cultivars planted in zone X had seed weights comparable to those of cultivars planted in zones I through IX. Wells had the lowest seed weight of 16.2 g and the top yielding variety Williams had a seed weight of 19.3 g. When compared among different environmental zones, Williams had a seed weight of 18.4 g in zone I, 18.9 g in zone III, 18.7 g in zone IV, 20.7 g in zone VI, and 16.4 g in zone VII.

Seed Quality

The estimate of seed quality was obtained from a visual rating where a score of 1 indicated the best quality and 5 the poorest quality. Mean seed quality scores for environmental zones I, III, IV, VI, VII, and X are presented in Tables 14, 24, and 25. The best seed quality score was reported for cultivars from environmental zone I which is below 500 m in altitude and near the equator. Average quality scores are reported for environmental zones VI, VII, and X. The lowest quality seed was observed in the 13 sites in zone IV which is below 500 m altitude and between 11 and 20° latitude.

In zone I the best quality seed was reported for Improved Pelican and Davis. Bragg, Williams, Clark 63, and Hill also received good ratings. In zone IV the best rating was accorded the cultivar Williams which was followed closely in quality by Davis, Improved Pelican, Clark 63, Hill, and Pickett 71. Comparable quality ratings were given to Woodworth, Williams, Bossier, and Hill in zone III. In zone VI, Improved Pelican was given the highest quality rating and Hill, Davis, and Bragg received good quality ratings.

Disease Rating

Cooperators were requested to make observations about incidence and intensity of diseases on plants. However, at many sites, observations were either omitted or incomplete. Therefore, a meaningful summary of disease observations could not be made.

Protein and Oil Content

The relationship of protein and oil content of soybean seeds usually fluctuates inversely. As protein content increases, oil decreases.

Zones I, II, and IV are reported in Table 26. In zone I, the mean for all cultivars was 39.5% with the range from 37.7 to 41.4%. Although Bossier was highest at 41.4% there was little difference among the top five cultivars. The mean oil content for all cultivars was 22.8%; Ransom had the highest content (24.8%).

In zone II, only one site returned seed for analysis. Calland and Essex had the highest protein content at 44.5 and 44.4%, respectively. Ransom and Williams were higher than the other entries in oil content.

In zone IV, Bossier and Columbus contained the highest protein content of 44.7 and 43.1%, respectively. Ransom and Woodworth had the highest oil content.

The two zones with the highest mean protein content for all cultivars were III and VIII. The mean protein in zone III (Table 28) was 43.2% with a range of 41.3-45.5%. The highest three cultivars include Improved Pelican, Bossier and Williams. The mean oil content was lowest in zones III (20.1%) and IX (18.6%). Improved Pelican and Hill contained the lowest oil content (19.1%) and Cobb had the highest (20.8%) in zone III.

In zone V (Table 28) with only one site reporting, Jupiter contained the highest protein content (43.9%) and Cobb the highest oil (24.9%).

In zone VI (Table 28), the top four cultivars in protein content included Improved Pelican (42.5%), Essex and Bossier (42.1%), and Columbus (42.0%). The highest oil content was produced by Ransom (23.3%).

The protein content of cultivars in zones VII and VIII were comparable (Table 29). Bossier, Cutler 71, Bragg, and Calland were the highest four in zone VII whereas Calland, Bragg, Cutler 71, and Williams were the top group in zone VIII. The mean for all cultivars was higher in zone VIII (43.2%) than in VII (41.5%). The reverse relationship was observed in oil content with 20.5% in zone VIII compared to 22.2% for zone VII.

Data were available for only two sites in zone IX (Table 29). Clark 63 produced the highest protein (41.9%) and Woodworth, Wells, and Beeson tied for highest oil (19.6%).

Only 2.9% in protein content separated the highest cultivar Columbus (41.7%) from the lowest Amsoy 71 (38.8%) in zone X. Oil content was similar in uniformity as the range was from 21.9% for Williams to 20.4% for Columbus.

Only one site each returned seeds for analysis in zones XI and XII (Table 30). In zone XI, Columbus had the highest protein content (43.4%) and Wells the highest oil content (21.2%). In zone XII, Steele produced the highest protein (43.7%) and Hodgson the highest oil (23.4%).

There were data available for six common cultivars among the three sites which returned seed for analysis in zone XIII (Table 31). The grand mean for protein was 40.2% with Wells highest at 42.8%. There was very little variation in oil content except for Wells (19.3%) which had the lowest oil content. The grand mean was 20.0% and Clark 63 had the highest content (20.7%).

Yield of Local Cultivars

As discussed earlier, cooperators were encouraged to substitute one or two local cultivars for INTSOY supplied entries. Cooperators substituted one cultivar at 27 sites and two at 26 sites. Of these 53 sites, the yield of a local entry exceeded that of the other ISVEX cultivars at only nine sites.

The highest yield obtained with any substituted cultivar (3196 kg/ha), was reported at Apatzingan, Mexico with the entry R.A.O. The grand mean of all entries at Apatzingan, Mexico was 2102 kg/ha. There was no significant difference at 5% among the next nine cultivars which included Jupiter, Davis, Hampton 266A, Cobb, Improved Pelican, Columbus, Tracy, Bossier, and Calland. The entry PB-1 yielded 2955 kg/ha at Puttalam, Sri Lanka, but there was no significant difference in the top four entries which also included, in order, Forrest, Hill, and SJ-2 (another substituted cultivar). The third highest was Visoja which yielded 2836 kg/ha at Caacupe, Paraguay. Fourth, fifth, and sixth highest were Loppa (2605 kg/ha) at Tandojam, Pakistan; PB-1 (2563 kg/ha) at Alutharama, Sri Lanka; and Manaus-1 (2217 kg/ha) at Manaus, Brazil, respectively.

Other substitute cultivars which yielded higher than ISVEX entries included Ogden, 43s, and Orba.

RESULTS AND DISCUSSION - JOINT INTSOY/IITA SITES

The joint INTSOY/IITA trial was difficult to coordinate because the requests for and dispatch of cultivars were received and forwarded from two widely separated institutions--INTSOY and IITA. Nonetheless, through close and careful communication, many cooperators received trials and returned useful data.

There were 25 sites which conducted the trial and 19 sites which returned usable data. The highest mean yield of 3494 kg/ha was obtained at Maradi, Niger. The highest yield for any cultivar was 4438 kg/ha with Davis, also at the Maradi site.

Selected agronomic characteristics of sites which could be combined are reported in Table 15; protein and oil content are reported in Table 27; and individual sites in Tables 55, 56, 73, 74, 75, 76, 81, 83, 86, 90, 91, 93, 95, 98, and 102.

Agronomic Characteristics

The combined analysis reported in Table 15 contains data from six sites in zone I ($0\text{-}10^{\circ}$ latitude, 0-500 m altitude). Davis and the IITA cultivar TGx 13-3-2644 were clearly first and second in yield and in rank by yield

across locations. Although there was no significant difference among the 15 entries, there was a 30% difference between the yields of the top five and the lowest three cultivars. The rank of INTSOY entries Davis, Jupiter, Williams, Cobb, Clark 63, and Bossier can be compared to the ranking reported for ISVEX sites in zone I in Table 6 where the ranking was Davis, Williams, Jupiter, Bossier, Clark 63, and Cobb. The mean of the top nine in the INTSOY/IITA trial was 2002 kg/ha compared to the mean for ISVEX sites in zone I of 2271 kg/ha. Five of the eight IITA cultivars were ranked among the top seven entries.

Mean days from emergence to flowering and from emergence to maturity are comparable between the INTSOY/IITA group and the ISVEX entries reported in Tables 8 and 9, respectively. The highest yielding IITA cultivars were among the latest to flower and to mature. The other IITA entries were moderately late.

The mean height of INTSOY/IITA cultivars was greater than the ISVEX cultivars which can be attributed to the height of IITA entries which averaged 56 cm compared to Improved Pelican at 67 cm and the other INTSOY entries at 39 cm.

There was a strong positive correlation between yield and root nodule weight and also nodule number. The highest correlation (0.72) within any zone was reported for this trial between yield and nodule weight at the second sampling.

Cooperators reported more lodging for all entries in the INTSOY/IITA trial. The worst lodged was TGm 249-4-b followed by Jupiter, TGm 220-1-2205, and TGx 13-3-2644. The least lodging was reported for Cobb, Bossier, and Davis.

Only one cultivar exhibited moderate shattering (TGm 210-1-2363). There was no real difference or shattering problem among the other 14 entries.

The seed weight per 100 seeds was 16.4 g compared to 17.0 g for ISVEX entries (Table 13). Williams had the largest seed at 20.0 g. A group of four cultivars had seed weighing from 18.0 to 18.9 g. These included Davis, Jupiter, Clark 63, and Bossier. IITA cultivars produced seed weighing from 12.7 to 16.6 g and except for Improved Pelican (13.8 g), most were smaller-seeded than ISVEX cultivars. There was a strong positive correlation between seed size and yield (Table 41).

The best quality seed was produced by TGm 294-4-2371 and TGx 66-5100. These were followed by a group of five cultivars of good quality--Davis, TGx 13-3-2644, TGm 256-1-b, Improved Pelican, and TGm 249-4-b. The group with the next best quality were TGm 210-1-2363, Williams, Cobb, and TGm 255-2-4341. Jupiter had the poorest rating of 2.5; Clark 63 and TGm 220-1-2205 were slightly better in quality.

Protein and Oil

The protein content of two IITA cultivars, TGm 294-4-2371 and TGm 256-1-b was 47.5 and 47.1%, respectively. This was higher than other entries at the six INTSOY/IITA sites and also greater than any other zone or cultivar mean from the ISVEX sites. The mean for all cultivars was also higher than the highest ISVEX zone.

Oil content ranged from a high of 24.4% for Cobb to a low of 19.2% for TGm 294-4-2371.

RESULTS AND DISCUSSION - JOINT INTSOY/SEARCA SITES

Data were available from only one site from the joint INTSOY/SEARCA soybean variety experiment. This trial was conducted at Sukothai in Thailand. The coefficient of variation was high for these data but Calland, Columbus, Forrest, and Multivar 80 had the highest yields which were 2861, 2692, 2632, and 2543 kg/ha, respectively (Table 145).

Those cultivars with medium days to flowering and to maturity had the highest yield. The latest flowering and maturing entries, SJ-4 and Tainung 4 ranked 10th and 11th. Altona and Multivar 80 tied for earliest flowering (27 days) and were also the earliest maturing.

The tallest cultivar Kaohsiung E-32 (118 cm) was lowest in yield and along with Orba (65 cm) was severely lodged. The only other badly lodged cultivar was TK-5. Altona and Forrest were the shortest entries. The mean for all entries was 64 cm.

Calland and Columbus had the largest seed and Orba and Koahsiung E-32, the smallest. There was little difference in seed quality except for Amsoy 71 and TK-5 which were given very good ratings.

SUMMARY

A large group of soybean cultivars of diverse genetic composition was evaluated under a wide range of environmental conditions in the Fourth International Soybean Variety Experiment (ISVEX) during 1976. Yields of 2000-4000 kg/ha of good quality seeds were consistently obtained under tropical and sub-tropical conditions.

Change in altitude (day- and nighttime temperature) had more effect on plant height and on days to flowering and maturity than did change in latitude (day length). Cultivars in groups 00 - VIII flowered earlier and did not grow as tall when grown at sites closer to the equator. Later maturing cultivars frequently, but not always, outyielded early maturing types. This presents problems in developing high-yielding cultivars which also mature early, since these types are frequently required for intensive cropping systems.

Lodging and shattering were not serious problems with the cultivars evaluated. Grain quality decreased under conditions of high humidity and temperature, especially near harvest time.

The effectiveness of rhizobia, particularly when related to yield, was difficult to evaluate which suggests problems of adaptability and persistence of strains.

Cultivars introduced through ISVEX consistently outyielded local entries. Multi-year summaries indicated the superiority of Davis, Forrest, Bossier, Williams, Clark 63, Cobb, Improved Pelican, and Jupiter under tropical conditions. The potential of Calland, Columbus, Essex, Hill, Ransom, and Pickett 71 may be reflected in future multi-year summaries.

The protein content of the same cultivars was as high or higher in tropical environments as in temperate conditions.

Table 1: Pedigree of soybean cultivars grown in the fourth International Soybean Variety Evaluation Experiment (ISVEX) during 1976

Cultivar	Maturity Group	Pedigree
Altona	00	P.I. 194654 x Flambeau
Amsoy 71	II	Amsoy ⁸ x (Blackhawk x Harosoy)
Beeson	II	C1253 x Kent
Bossier	VII	Selection from Lee
Bragg	VII	Jackson x D49-2491
Calland	III	C1253 x Kent
Ces-16-17		
Clark 63	IV	(Clark ⁷ x CNS) x (Clark ⁶ x Blackhawk)
Cobb	VIII	F57-735 x D58-3358
Columbus	IV	C1069 x Clark
Corsoy	II	Harosoy x Capital
Cutler 71	IV	Cutler ⁴ x Kent
Davis	VI	[Roanoke x (Ogden x CNS)] x (Ralsoy x Ogden)
Essex	V	Lee x S5-7075
Forrest	V	Dyer x Bragg
Hark	I	Hawkeye x Harosoy
Hill	V	(Dunfield x Haberlandt) x Sib of Lee
Hodgson	I	Corsoy x M372
Imp. Pelican	VIII	Tanloxi x P.I. 60406
Jupiter	IX	D49-2491 x P.I. 240664
Kaohsiung E-32		
Lincoln	III	Mandarin x Manchu
Multivar 80		
Orba		
Pickett 71	VI	Pickett x P.R. Resistant Lee
Ransom	VII	(N55-5931 x N55-3818) x D56-1185
SJ-1		
Steele	I	Blackhawk x Harosoy
Swift	0	[(Lincoln ² x Richland) x Korean] x (Renville x Capital)
Tainung 4		
TGm 220-1-2205		Selection from Lee 68 x (Hill x PI 274,454)
TGm 210-1-2363		Selection from Lee 68 x (Hill x PI 274,454)
TGm 255-2-4341		Selection from D66-8666 x (Hill x PI 274,454)
TGm 249-4-b		Selection from D66-8666 x (Hill x PI 274,454)
TGm 294-4-2371		Selection from 203-6-1-m(7)
TGm 256-1-b		Selection from 066-8666 x (Hill x PI 274,454)
TGx 66-5100		Selection - parentage unknown
TGx 13-3-2644		Selection - parentage unknown
TK-5		
Wells	II	C1266R x C1253
Williams	III	Wayne x L57-0034
Woodworth	III	Wayne x L57-0034

Table 2: Distribution of cultivars in the fourth ISVEX during 1976

Cultivar	Distribution by environmental zone						Joint INTSOY/ IITA Trials	Joint INTSOY/ SEARCA Trials
	I, II, & III	IV	V, VI, & VII	VIII, IX, & XI	XII	Temperate		
Bossier	X	X	X	X	X	X	X	X
Bragg	X	X	X	X	X	X	X	X
Calland	X	X	X	X	X	X	X	X
Clark 63	X	X	X	X	X	X	X	X
Cobb	X	X	X	X	X	X	X	X
Columbus	X	X	X	X	X	X	X	X
Davis	X	X	X	X	X	X	X	X
Essex	X	X	X	X	X	X	X	X
Forrest	X	X	X	X	X	X	X	X
Hill	X	X	X	X	X	X	X	X
Imp. Pelican	X	X	X	X	X	X	X	X
Jupiter	X	X	X	X	X	X	X	X
Pickett 71	X	X	X	X	X	X	X	X
Ransom	X	X	X	X	X	X	X	X
Williams	X	X	X	X	X	X	X	X
Woodworth								
Cutler 71								
Beeson								
Wells								
Amsoy								
Corsoy								
Hark								
Hodgson								
Steele								
Altona								
Swift								

Table 2 (Cont'd): Distribution of cultivars in the fourth ISVEX during 1976

Cultivar	Joint INTSOY/ IITA Trials	Joint INTSOY/ SEARCA Trials
TGm 220-1-2205	X	
TGm 210-1-2365	X	
TGm 255-2-4341	X	
TGm 249-4-B	X	
TGm 294-4-2371	X	
TGm 256-1-B	X	
TGx 66-5100	X	
TGx 13-3-2644	X	
CES-16-17		X
Kaohsiung E-32	X	
Lincoln		X
Multivar 80		X
Orba		X
SJ-1		X
Tainung 4		X
TK-5		X

Table 3: Description of environmental zones in the fourth International Soybean Variety Evaluation Experiment

Zone	Latitude	Elevation (m)	Number of sites
I	$\leq 10^{\circ}59'$ ^{1/}	≤ 500	39
II	$\leq 10^{\circ}59'$	501 - 1,000	6
III	$\leq 10^{\circ}59'$	$> 1,000$ ^{2/}	13
IV	$11^{\circ} - 20^{\circ}59'$	≤ 500	24
V	$11^{\circ} - 20^{\circ}59'$	501 - 1,000	1
VI	$11^{\circ} - 20^{\circ}59'$	$> 1,000$	7
VII	$21^{\circ} - 30^{\circ}59'$	≤ 500	20
VIII	$21^{\circ} - 30^{\circ}59'$	501 - 1,000	6
IX	$21^{\circ} - 30^{\circ}59'$	$> 1,000$	3
X	$31^{\circ} - 40^{\circ}59'$	≤ 500	15
XI	$31^{\circ} - 40^{\circ}59'$	501 - 1,000	5
XII	$31^{\circ} - 40^{\circ}59'$	$> 1,000$	2
XIII	$\geq 41^{\circ}$	≥ 0	5

1/ \leq = less than or equal to

2/ $>$ = greater than

Table 4: Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Africa	Algeria	Khemis-Miliana	36° 15'N	289
	Benin	Parakou	9° 58'N	358
	Central African Empire	Bossangoa	6° 26'N	521
	Egypt	Bahtem	30° N	24
		Seds	29° N	41
	Ethiopia	Awassa	7° N	1700
		Dedessa	9° 08'N	1220
		Jimma	7° 46'N	1756
		Leku	6° 45'N	1820
	Gabon	Ntoum (2 trials)	0° 20'N	18
	Ghana	Kumasi	6° 41'N	270
		Legon Farm	5° 39'N	60
	Ivory Coast	Dekokaha	9° 05'N	350
		Odienne	9° 06'N	400
		Sirasso	9° 04'N	350
		Maseru	29° 21'S	1550
	Niger	Maradi	13° 28'N	351
	Rhodesia	Salisbury	17° 48'S	1506
	Somalia	Afgoi	2° 08'N	13
	Sudan	Wau	7° 36'N	450
	Swaziland	Big Bend	26° 52'S	150
	Tanzania	Ilonga	6° 46'S	503
	Togo	Davie	6° 26'N	95
		Kitangbao	9° 16'N	340
	Uganda	Kampala	0° 28'N	1160
	Upper Volta	Bobo-Dioulasso	11° 25'N	250
	Zaire	Kisanga	11° 44'S	1187
	Zambia	Kabwe	14° 12'S	1207
		Magoye (3 trials)	16° 01'S	1067
		Mulfulira	12° 37'S	1265
Asia	Bangladesh	Joydevpur	24° N	8
		Kashimpur	24° N	8
		Mymensingh	24° N	18
		Pabna	24° 03'N	22
	India	Jabalpur	23° 10'N	393
		Pantnagar	29° 05'N	243
	Indonesia	Malang	8° 25'S	335
		Medan	3° 35'N	25
Nepal		Khairanitar Farm	28° N	1000
		Khumaltar	27° 40'N	1360

Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Asia (cont'd)	Pakistan	Islamabad	34° N	526
		Kotdiji (2 trials)	27° N	18
		Lahore	31° 30'N	230
		Mingora	36° 46'N	904
		Mirwah	25° N	20
		Swat	36° 46'N	904
		Tandojam	25° N	63
		Tandojam	25° N	2
		Umerkot	25° N	29
	Philippines	Los Banos	14° 10'N	15
		Alutharama (2 trials)	7° 30'N	266
	Sri Lanka	Angunukolapalessa	6° N	30
		Bandarawela	6° 51'N	1220
		Gannoruwa (3 trials)	7° 15'N	457
		Kilinochchi (2 trials)	9° 02'N	9
		Maha Illuppallama (2 trials)	8° 05'N	138
		Okkampitiya	6° 45'N	184
		Puttalam	8° 15'N	24
		Thirunelveliy	10° N	1
		Khon Kaen	16° 36'N	180
		Saraburi	14° 47'N	100
		Suhan Farm	14° 30'N	367
Europe	Hungary	Godollo	47° N	
		Szarvas	46° 51'N	84
	Italy	Sassari, Sardinia	40° 43'N	80
		Ussana, Sardinia	39° 25'N	89
	Poland	Radzikow	52° 13'N	90
	Portugal	Porto	41° 20'N	29
	Spain	Seville	37° 30'N	20
	Yugoslavia	Novi Sad	45° 20'N	80
Mesoamerica	Bahamas	San Andros	24° 57'N	2
	Dominican Republic	San Cristobal	18° 30'N	43
	Jamaica	Caymanas	18° N	2
	Mexico	Apatzingan (2 trials)	19° N	337
	Nicaragua	Managua	12° 33'N	60
		Posoltega	12° 33'N	60
	Puerto Rico	Isabela	18° 28'N	140

Table 4 (cont'd): Geographical description of sites where the fourth International Soybean Variety Evaluation Experiment was conducted and from which useful data were returned to INTSOY

Region	Country	Site	Latitude	Elevation (m)
Middle East	Iran	Karaj	37° 47'N	1300
		Safiabad	32° 16'N	81
	Israel	Bet-Dagan (2 trials)	32° N	80
	Jordan	Deir Alla	35° 12'N	-68
	Saudi Arabia	Wadi Jizan	17° 55'N	83
North America	United States	Urbana, Illinois	40° 07'N	226
Oceania	New Caledonia	Bourail	21° S	0
	New Hebrides	Port Vila	17° 45'S	15
	Tahiti	Papeete	17° 30'S	2
	United States (2 trials)	Kapaa, Hawaii	21° N	168
South America	Argentina	Parana	31° 50'S	111
	Bolivia	Santa Cruz	18° 39'S	389
	Brazil	Santa Cruz	17° 14'S	320
	Chile	Janauba	15° S	510
	Colombia	La Platina	33° 27'S	625
	Ecuador	Palmira	3° 32'N	1008
		Boliche	2° 21'S	17
		Pallatanga	1° 59'S	1
		Portoviejo	1° 04'S	30
		Pichilingue	1° 05'S	73
	Paraguay	Caacupe	25° 24'S	228
	Peru	La Vina	12° 05'S	251
		Lima	12° 05'S	238
	Uruguay	Tacuarembo	31° 42'S	120
		Treinta y Tres	33° 18'S	31

Table 5: List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA	Algeria	Officer-in-Charge	Station Regionale I.D.C.I. Khemis-Miliana El-Asnam, ALGERIA
	Benin	Director	Institut de Recherches Agronomiques Tropicales B.P. 155 Parakou, BENIN
		Mr. E. Limburg Mr. E. Fado	Action Rurale B.P. 102 Save, BENIN
	Botswana	Mr. P. G. Lee	Agricultural Research Station - Content Farm P/bag 0033 Gaborone, BOTSWANA
		Ms. Lynn A. Miller	Mahalapye Rural Training Center Box 300 Mahalapye, BOTSWANA
	Burundi	Mr. J. De Brabandere	Buhoro Station B.P. 795 Bujumbura, BURUNDI
		Mr. De Marcim	ISABU SEMS/IMBO B.P. 2393 Bujumbura, BURUNDI
	Cameroon	Mr. Jean Praquin	I.C.V.T. Santchou, CAMEROON
	Central African Empire	Mr. Miguel L. Carmen	FAO Expert Centre de Multiplication de Soumbe B.P. 39 Bossangoa, CENTRAL AFRICAN EMPIRE
	Congo	Ing. Ivetic Obrad	Expert de la FAO Agricultural Vulgarisation Lekana, B.P. 3 Brazzaville, CONGO

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Egypt	Dr. Ali Abdel Aziz Dr. Samia Ali Mahmoud	Bahtem Research Station Bahtem, EGYPT 60 A Mohamed Farid St. Abdin, Cairo, EGYPT
Ethiopia		Mr. Teklemariam Haile Mr. Tadesse Mr. Demissie Mitiku Mr. Titos Legatos	Institute of Agricultural Research Bako Research Station P.O. Box 3 Bako, ETHIOPIA Leku c/o Awassa P.O. Box 80 Sidamo Adm. Region ETHIOPIA
		Mr. G. M. Shekour Mr. G. E. Ande	Jimma Agricultural Institute Box 192 Jimma, ETHIOPIA
Gabon		Mr. J. van Amerongen Mr. G. Van de Plas	Project CIAM B.P. 5 Ntoum, GABON
Ghana		Mr. R. B. Dadson	Lagon Farm University of Ghana Lagon, GHANA
		Mr. Hector Mercer- Quarshie	Crops Research Institute Box 3785 Kumasi, GHANA
Ivory Coast		Dr. A. D. Assa	Faculte des Sciences Universite National de Cote d'Ivoire B. P. 4322 Abidjan, IVORY COAST
Lesotho		Mr. Chen-Kien Chu	P.O. Box 789 Maseru, LESOTHO
Mali		Mr. M. Crambade	Institut de Recherches Pour Les Huiles et Oleagineux B.P. 16 Koulikoro, MALI

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Niger	Director	Institut de Recherches Agronomiques Tropicales Station de Tarna B.P. 240 Maradi, NIGER
	Nigeria	Dr. D. Nangju Mr. J. P. Singh	International Institute of Tropical Agriculture Oyo Road, P.M.B. 5320 Ibadan, NIGERIA
	Rhodesia	Dr. J. R. Tattersfield Mr. J. S. Tichagwa	Salisbury Research Station Box 8100 Causeway Salisbury, RHODESIA
	Somalia	Mr. M. A. Arkow Mr. S. J. Osoble Mr. A. H. Maio	Agricultural Research Institute Afgoi, SOMALIA
	Sudan	Mr. D. Hopkinson Mr. H.L.M. van Wissen	Halima Experimental Station Ministry of Agriculture Wau, SUDAN
	Swaziland	Mrs. Janet Cumberland	Crop Agronomist Malkerns Research Station P.O. Box 4 Malkerns, SWAZILAND
	Tanzania	Mr. M.E.T. Mmbaga	A.R.I. - Ilonga Private Bag Kilosa, TANZANIA
		Mr. A. J. Carpenter	Kizimbani, Box 159, Zanzibar Zanzibar, TANZANIA
	Togo	Mr. J. Marquette	La Chef de la Mission Institut de Recherches Agronomiques Tropicales au Togo B.P. 1163 Lome, TOGO
	Uganda	Mr. C. K. Bulungu	Makerere University Farm P.O. Box 7062 Kampala, UGANDA
	Upper Volta	Mr. C. I. Korteweg	CERCI B.P. 130 BOBO-DIOULASSO, UPPER VOLTA

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
AFRICA (cont'd)	Zaire	Mr. Thomas G. Hart	Programme National Mais B.P. 3673 Lubumbashi, ZAIRE
	Zambia	Mr. F. Javaheri	Soybean Coordinator Magoye Regional Research Station P.O. Box 11 Magoye, ZAMBIA
		Mr. A.A.V. Sarmezey	Copperbelt Regional Research Station P.O. Box 668 Mufulira, ZAMBIA
		Mr. N. S. Lipovac	Kabwe Regional Research Station P.O. Box 908 Kabwe, ZAMBIA
Bangladesh	Dr. Peter R. Hobbs Mr. Abdus Sobhan Mr. M. A. Hoque Mr. N. I. Miah	Dr. A. J. Miah Mr. B. H. Sikder Mr. A. Mansur	Bangladesh Rice Research Institute P.O. Box 911 Joydevpur, BANGLADESH
	Mr. M.A.H. Sarker Mr. E. Nafziger	Institute of Nuclear Agriculture P.O. Box 4 Mymensingh, BANGLADESH	
India	Dr. S. M. Sharma Mr. S. K. Mehta	Agricultural Research Substation Pabna, BANGLADESH	
	Dr. B. B. Singh	Dept. of Plant Breeding and Genetics J. N. Krishi Vishwa Vidyalay Jabalpur -4 (M.P.) INDIA	
	Mr. Riwanodja Mr. Sumarno	G. B. Pant University of Agriculture Pantnagar, INDIA	
Indonesia	Ir. B.O.P. Tampubolon	Jambegede Agriculture Station Kepanjen (Malang) East Java, INDONESIA	
		Fakultas Pertanian, U.S.U. Medan, Sumatra Utara, INDONESIA	

Table 5 (Cont'd): List of cooperators participating in the fourth International Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
ASIA (cont'd)	Nepal	Mrs. Meena Panday	Khumaltar Agriculture Farm Khumaltar, G.P.O. Box 404 Kathmandu, NEPAL
		Mr. B. Thapa Mr. M. P. Bharati	Gandaki Agriculture Development Project Khairanitar, NEPAL
	Pakistan	Mr. A. H. Chaudhry Mr. M. A. Jaleel Mr. N. Ahamed Mr. A. H. Soomro	Oilseeds Section Agricultural Research Institute Tandojam, PAKISTAN
		Mr. R. Troedson	Agricultural Project Technical Services Assoc. 23-2 Race Course Road Lahore 3, PAKISTAN
		Mr. P. F. Knowles Mr. M. A. Rana	Pakistan Agricultural Research Station P.O. National Health Laboratories Islamabad, PAKISTAN
		Mr. K. Sheikh Mr. M. I. Soomro	Agricultural Research Sub-station Kotdiji, PAKISTAN
		Mr. Syed Badshah	Tarnab Research Institute Peshawar, PAKISTAN
	Philippines	Mr. Benjamin M. Legaspi Mr. R. R. Matias	Legume Research Project Dept. of Agriculture & Natural Resources Bureau of Plant Industry Economic Garden Los Banos, Laguna 3732, PHILIPPINES
		Mr. S. M. Santhirasivam Mr. S. Kandasamy	Agricultural Research Station Alutharama Mahiyangana, SRI LANKA
	Sri Lanka	Mr. A. Senthinathan Mr. R. Radhakrishnan	Agricultural Research Centre Angunukolapalessa, SRI LANKA
		Mr. L. G. Herat Mr. G. R. Aloysisus	Regional Agricultural Research Station Bandarawela, SRI LANKA

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
ASIA (cont'd)	Sri Lanka (cont'd)	Mr. C. D. Dharmasena Mr. N. Kanaganayagam Miss P.W.S.M. Weerasinghe Mr. S. Thirianathan Mr. I. S. Padmasiri Mrs. J. S. Selvaratnam Mr. S. Balasunderam Mr. R. Manokaran	Central Agriculture Research Institute, Gannoruwa Peradeniya, SRI LANKA Agricultural Research Station Kilinochchi, SRI LANKA Agricultural Research Station Maha Illuppalama, SRI LANKA Agricultural Research Station Ilavankulam Puttalam, SRI LANKA Agricultural Research Centre Thirunelvelvy Jaffna, SRI LANKA
Thailand		Dr. Prasan Yingchol Mr. Ed Sarobol Mr. J. Verawudh Dr. Paisan Laosuwan Mr. Waiwat Burantham Mr. Pattawuth Jewtrakool Mr. Prawit Wongsukon Dr. Arwooth Na Lampang	Division of Agronomy Dept. of Plant Science College of Agriculture Kasetsart University Bangkok, THAILAND Khon Kaen University Khon Kaen, THAILAND Khun Talae Rubber Research Center Surat Thani, THAILAND Sisumrong Agricultural Experiment Station Sukothai, THAILAND
EUROPE	Hungary	Dr. Andor Balint Dr. Elemer Posgay	Dept. for Plant Breeding University of Agricultural Sciences Godollo 2103, HUNGARY Research Institute of Irrigation Szarvas, HUNGARY
	Italy	Prof. Giuseppe Rivoira	Instituto di Agronomia Generale e Coltivazioni Erbacee Universita di Sassari Via E. de Nicola Cod. Post. 07100 Sassari, Sardinia, ITALY

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
EUROPE (cont'd)	Poland (cont'd)	Dr. J. Szylmer	Soybean Laboratory of Plant Breeding and Acclimatization Institute Radzikow, POLAND
	Portugal	Mr. Abilio Silva Mr. Duarte S. Sousa Mr. Antonio D. Angelico	Estacao Agraria do Porto R. Restauracao Porto, PORTUGAL
	Spain	Director	La Rinconada Instituto Nacional de Investigaciones Agrarias San Jose de la Rinconada Seville, SPAIN
	Yugoslavia	Dr. Bogdan Belic	Faculty of Agriculture 21.00 Novi Sad, V. Vlahovica 2, YUGOSLAVIA
MESO-AMERICA	Bahamas	Dr. John R. Thompson	BARTAD Project San Andros P.O. Andros Island, BAHAMAS
	Dominican Republic	Mr. J. Diaz Mr. M. Rosario	CNIECA San Cristobal, DOMINICAN REPUBLIC
	Jamaica	Mr. Harold R. Wilson	Caymanas Estates Ltd. Spanish Town, JAMAICA
	Mexico	Mr. Benito Cazares-Enriques	INIA Caeva Apdo. Postal #40 Apatzingan, Mich., MEXICO
	Nicaragua	Mr. Manuel Vanegas	Agricultural Division Research & Development Dept. Central Bank of Nicaragua P.O. Box 2252 Managua, NICARAGUA
	Puerto Rico	Dr. E. H. Paschal II	Isabela, PUERTO RICO
	Trinidad & Tobago	Mr. David C. Martin	Chaguaramas Agricultural Development Project Ministry of Agriculture, Land & Fisheries Port-of-Spain, TRINIDAD
MIDDLE EAST	Iran	Dr. M. C. Amirshahi Mr. B. Yazdi Samadi	College of Agriculture University of Tehran Karaj, IRAN

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
MIDDLE EAST (cont'd)	Iran (cont'd)	Mr. Hesmatollah Pourdavai Mr. Ghafari Mr. Shariati Dr. J. C. Carapetian	Seed & Plant Improvement Program Oilseed Research Seciton Karaj, IRAN College of Agriculture and Animal Husbandry P.O. Box 32 Rezaiyeh, IRAN
		Dr. E. K. Vaughan Mr. N. Hodjati	Safiabad Research Center IRAN
	Iraq	Dr. Salih M. Damirgi	Dept. of Soil Science College of Agriculture Abu-Ghraib, IRAQ
	Israel	Dr. Baruch Retig Mr. V. Lehrer	Agricultural Research Organization The Volcani Center P.O. Box 6 Bet-Dagan, ISRAEL
	Jordan	Mr. N. Katkhuda Mr. M. Khuadare Mr. A. Hammuda	Wadi Dulail Research Station JORDAN Deir Alla Station, JORDAN
	Saudi Arabia	Mr. Mohamed Nour Boukhari	Hakma Station Wadi Jizan Agricultural Development Project Jizan, SAUDI ARABIA
NORTH AMERIA	United States	Mr. Robert Dunker	INTSOY Dept. of Agronomy University of Illinois Urbana, Illinois, U.S.A. 61801
OCEANIA	New Caledonia	Mr. Robert Arrighi	CREA B.P. 37 Bourail, NEW CALEDONIA
	New Hebrides	Mr. B. L. Weightman	Department of Agriculture Tagabe Agricultural Station Port Vila, NEW HEBRIDES
	Tahiti	Mr. Jean-Louis Reboul Mr. Robert Yau-Akui	Service de l'Economie Rurale B.P. 100 Papeete, TAHITI

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
OCEANIA	United States	Mr. Terry Sekioka	Hawaii Agricultural Experiment Station Kapaa, Hawaii, U.S.A. 96746
SOUTH AMERIA	Argentina	Mr. Raul Vicentini	INTA Estacion Experimental Regional Agropecuaria de Parana Casilla Correo 128 3100 Parana, Entre Rios, ARGENTINA
	Bolivia	Mr. Alberto Castillo	Estacion Experimental "A. Gomez" Casilla #1281 Santa Cruz, BOLIVIA
		Mr. Hebert Zurita Mr. Zenon Hunezy Mr. Warner Fisher	Estacion Experimental Agricola de Saavedra Santa Cruz, Casilla 247 Santa Cruz, BOLIVIA
	Brazil	Dr. Fazal Rahman	Research Scientist Instituto Nacional de Pesquisas da Amazonia Caixa Postal 478 - 69.000 Manaus, Amazonas, BRAZIL
	Chile	Mr. Hugo Geldres R.	Instituto de Investigaciones Agropecuarias Estacion Experimental La Platina Santa Rosa 11610 - Paradero 33 Casilla 10, La Granja Santiago, CHILE
	Colombia	Mr. Gilberto Bastidas R.	Programa Leguminosas de Grano y Oleaginosas Anuales Centro Exp. Palmira (ICA) Apartado Aereo 233 Palmira, COLOMBIA
	Ecuador	Ing. Eduardo Calero H.	Oil Seed Program Instituto Nacional de Investigaciones Agropecuarios Estacion Experimental Boliche Apartado No. 7069 Guayaquil, ECUADOR
	Paraguay	Mr. Roberto Casaccia Mr. Oscar Aguilera Mr. Justo Lopez	Instituto Agronomico Nacional Caacupe, PARAGUAY

Table 5 (Cont'd): List of cooperators participating in the fourth International Soybean Variety Evaluation Experiment

<u>Region</u>	<u>Country</u>	<u>Name</u>	<u>Address</u>
SOUTH AMERICA (cont'd)	Paraguay (cont'd)	Mr. Sinforiano Paniagua S.	Director del C.R.I.A. Ministerio de Agricultura y Ganaderia Capitan-Miranda, PARAGUAY
Peru		Ing. Cesar A. Maceda	CRIA - II Sub-estacion Experimental Bagua - Apartado 116 Chiclayo, PERU
		Mr. Hugo Soplin V.	National Agriculture University La Vina, PERU
		Ing. Jose Bruno Ing. Rufino Montalvo	Estacion Experimental - La Molina Centro Regional de Investigacion Agropecuarias Apartado 2791 Lima, PERU
Uruguay		Mr. Luis Amendola	Estacion Exp. del Norte Gral Flores 390 Tacuarembo, URUGUAY
		Mr. Miguel A. Berasain	Estacion Exp. del Este Avda. Brasil 139 Teinta y Tres, URUGUAY

Table 6: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth International Soybean Variety Experiment (ISVEX) conducted in similar environmental zones (I and IV)

Cultivar	Mean grain yield (kg/ha)			
	15 sites		16 sites	
	0-10° lat ^{1/}	0-500 m ^{2/}	11-20° lat	0-500 m
Davis	2525	(1) ^{3/}	2466	(1)
Forrest	2399	(2)	2290	(3)
Imp. Pelican	2365	(3)	1857	(12)
Bragg	2306	(4)	2206	(5)
Williams	2246	(5)	2092	(8)
Jupiter	2242	(6)	----	
Bossier	2143	(7)	1953	(11)
Clark 63	2117	(8)	2102	(7)
Hill	2093	(9) ^{4/}	1970	(10)
Calland	----		2356	(2)
Cobb	----		2236	(4)
Ransom	----		2193	(6)
Pickett 71	----		2061	(9)
Woodworth	----		1685	(13)
Mean	2271		2113	
LSD (.05)	-NS-	^{5/}	332.8	

1/ Range of latitude where trials were planted

2/ Range of elevations where trials were planted

3/ Numbers in parentheses indicate ranking of mean yields

4/ Cultivar omitted at some sites; therefore,
mean values not calculated

5/ LSD not significant at 5% level

Table 7: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean rank of grain yields		
	15 sites	16 sites	
	0-10° lat	11-20° lat	0-500 m
Davis	1	1	
Forrest	3	3	
Imp. Pelican	2	12	
Bragg	4	8	
Williams	6	5	
Jupiter	5	-	
Bossier	7	10	
Clark 63	9	7	
Hill	8	11	
Calland	-	2	
Cobb	-	4	
Ransom	-	6	
Pickett 71	-	9	
Woodworth	-	13	

Table 8: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean days to flower	
	15 sites	15 sites ^{1/}
	0-10° lat	11-20° lat
	0-500 m	0-500 m
Davis	30	33
Forrest	29	29
Imp. Pelican	34	39
Bragg	30	29
Williams	27	26
Jupiter	38	--
Bossier	30	28
Clark 63	29	26
Hill	31	31
Calland	--	26
Cobb	--	30
Ransom	--	29
Pickett 71	--	29
Woodworth	--	25
Mean	31	29
LSD (.05)	2.2	2.0

1/ Number of sites contributing to mean may vary because data for certain characteristics not recorded at some sites

Table 9: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean days to harvest		
	15 sites		16 sites
	0-10° lat	11-20° lat	0-500 m
Davis	99		94
Forrest	90		91
Imp. Pelican	98		102
Bragg	95		93
Williams	88		86
Jupiter	115		--
Bossier	94		95
Clark 63	87		87
Hill	91		88
Calland	--		88
Cobb	--		97
Ransom	--		94
Pickett 71	--		92
Woodworth	--		84
Mean	95		92
LSD (.05)	4.1		4.9

Table 10: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean plant height (cm)		
	15 sites		16 sites
	0-10° lat	11-20° lat	0-500 m
Davis	33		49
Forrest	35		43
Imp. Pelican	74		86
Bragg	37		42
Williams	42		54
Jupiter	68		--
Bossier	33		36
Clark 63	45		55
Hill	36		40
Calland	--		59
Cobb	--		44
Ransom	--		38
Pickett 71	--		31
Woodworth	--		48
Mean	45		48
LSD (.05)	5.8		7.0

Table 11: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean lodging score ^{1/}	
	14 sites	16 sites
	0-10° lat 0-500 m	11-20° lat 0-500 m
Davis	1.1	1.4
Forrest	1.1	1.2
Imp. Pelican	1.9	2.1
Bragg	1.2	1.2
Williams	1.0	1.4
Jupiter	1.8	---
Bossier	1.1	1.2
Clark 63	1.2	1.7
Hill	1.1	1.4
Calland	---	1.6
Cobb	---	1.2
Ransom	---	1.1
Pickett 71	---	1.1
Woodworth	---	1.5
Mean	1.3	1.4
LSD (.05)	0.36	0.35

1/ Mean of lodging scores where:

- 1 = all plants erect
- 2 = all leaning slightly or a few down
- 3 = all leaning moderately (45°) or 25-50% down
- 4 = all leaning considerably or 50-80% down
- 5 = all plants down

Table 12: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean shattering score ^{1/}		
	13 sites		13 sites 11-20° lat 0-500 m
	0-10° lat 0-500 m	11-20° lat 0-500 m	
Davis	1.1	1.2	
Forrest	1.0	1.1	
Imp. Pelican	1.1	1.1	
Bragg	1.0	1.0	
Williams	1.0	1.1	
Jupiter	1.1	---	
Bossier	1.1	1.0	
Clark 63	1.1	1.1	
Hill	1.0	1.2	
Calland	---	1.3	
Cobb	---	1.2	
Ransom	---	1.0	
Pickett 71	---	1.2	
Woodworth	---	1.4	
Mean	1.1	1.1	
LSD (.05)	-NS-	-NS-	

1/ Mean of shattering scores where:

- 1 = no shattered pods
- 2 = 1-10% shattered
- 3 = 10-25% shattered
- 4 = 25-50% shattered
- 5 = over 50% shattered

Table 13: Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean seed weight (g/100 seeds)		
	15 sites	15 sites	
	0-10° lat	0-10° lat	
	0-500 m	0-500 m	
Davis	18.7	16.4	
Forrest	15.0	15.0	
Imp. Pelican	14.4	12.8	
Bragg	18.3	16.4	
Williams	18.4	18.7	
Jupiter	18.3	----	
Bossier	17.0	16.7	
Clark 63	17.0	17.4	
Hill	15.9	15.8	
Calland	----	19.4	
Cobb	----	16.2	
Ransom	----	17.4	
Pickett 71	----	16.7	
Woodworth	----	16.9	
Mean	17.0	16.6	
LSD (.05)	0.97	1.40	

Table 14: Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (I and IV)

Cultivar	Mean seed quality score ^{1/}		
	14 sites		13 sites
	0-10° lat	11-20° lat	0-500 m
Davis	1.8		2.6
Forrest	2.0		2.9
Imp. Pelican	1.4		2.5
Bragg	1.7		3.0
Williams	1.6		2.4
Jupiter	2.2		---
Bossier	2.0		2.8
Clark 63	1.7		2.6
Hill	1.7		2.5
Calland	---		2.9
Cobb	---		2.8
Ransom	---		3.1
Pickett 71	---		2.6
Woodworth	---		2.8
Mean	1.8		2.7
LSD (.05)	0.47		-NS-

1/ Mean of seed quality scores where:

- 1 = very good
- 2 = good
- 3 = fair
- 4 = poor
- 5 = very poor

Table 15: Selected agronomic characteristics of cultivars observed in the first joint INTSOY/ITTA Soybean Variety Evaluation Experiment conducted in zone I

Cultivar	Grain yield (kg/ha)	Means of observations at 6 sites, 0-10 ^o , 0-500m		
		Rank of grain yield	Days to ^{1/} flower	Days to harvest
Davis	2138	1	28	92
TGx 13-3-2644	2136	2	41	106
Jupiter	2103	3	44	105
TGm 210-1-2363	2026	5	39	96
TGm 220-1-2205	1973	7	44	103
TGm 256-1-b	1942	4	38	98
TGm 294-4-2371	1928	10	41	103
Imp. Pelican	1899	8	34	91
TGm 255-2-4341	1871	6	36	100
TGm 249-4-b	1859	11	36	101
Williams	1798	9	26	83
Cobb	1782	12	28	90
TGx 66-5100	1699	14	36	98
Clark 63	1668	13	26	85
Bossier	1481	15	25	88
Mean	1887	--	35	96
LSD (.05)	-NS-	--	6.8	9.2

^{1/}Mean from 5 sites only

Table 15 (cont'd): Selected agronomic characteristics of cultivars observed in the first INTSOY/ITTA Soybean Variety Evaluation Experiment conducted in zone I

	Means of observations at 6 sites, 0-10°, 0-500m			
	Plant height (cm)	Lodging score ^{1/}	Shattering score ^{1/}	Seed weight ^{1/} (g/100 seeds)
Davis	32	1.4	1.0	18.9
TGx 13-3-2644	63	2.3	1.1	16.6
Jupiter	58	2.4	1.0	18.3
TGm 210-1-2363	51	2.0	2.0	16.0
TGm 220-1-2205	44	2.4	1.2	14.0
TGm 256-1-b	56	2.0	1.0	13.6
TGm 294-4-2371	58	2.0	1.0	15.6
Imp. Pelican	67	1.8	0.8	13.8
TGm 255-2-4341	54	2.0	1.1	12.7
TGm 249-4-b	60	2.7	1.0	15.3
Williams	42	2.0	0.8	20.0
Cobb	33	1.1	1.2	19.4
TGx 66-5100	61	2.0	1.0	14.9
Clark 63	43	2.1	0.9	18.3
Bossier	27	1.3	0.8	18.0
Mean	50	2.0	1.1	16.4
LSD (.05)	10.8	-NS-	0.52	1.48
^{1/} Mean from 5 sites only				
^{2/} Mean from 3 sites only				

^{1/}Mean from 5 sites only

^{2/}Mean from 3 sites only

Table 16: Yield of soybean grain in kilograms per hectare of cultivars observed in the fourth ISVEEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean grain yield (kg/ha)					
	6 sites		5 sites		16 sites	
	0-10° lat	> 1000 m	11-20° lat	> 1000 m	21-30° lat	
					0-500 m	
Hill	1990	(1)	2776	(9)	1942	(9)
Davis	1934	(2)	3207	(1)	2371	(1)
Forrest	1867	(3)	2744	(10)	2227	(4)
Cobb	1697	(4)	3010	(6)	----	
Imp. Pelican	1661	(5)	2518	(11)	----	
Bossier	1616	(6)	2839	(8)	2306	(3)
Pickett 71	1590	(7)	2493	(12)	2101	(6)
Ransom	1458	(8)	3061	(5)	2358	(2)
Williams	1448	(9)	2467	(14)	2030	(7)
Calland	1340	(10)	3114	(3)	1938	(10)
Clark 63	1174	(11)	2471	(13)	1997	(8)
Woodworth	1128	(12)	2272	(15)	1634	(11)
Bragg	1057	(13)	2933	(7)	2204	(5)
Essex	----		3122	(2)	----	
Columbus	----		3111	(4)	----	
Mean	1535		2809		2101	
LSD (.05)	378.2		447.6		313.3	

Table 17: Mean of the ranks of soybean grain yields of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean rank of grain yields		
	6 sites 0-10° lat > 1000 m	5 sites 11-20° lat > 1000 m	16 sites 21-30° lat 0-500 m
Hill	1	10	9
Davis	2	1	3
Forrest	3	9	4
Cobb	5	7	-
Imp. Pelican	4	11	-
Bossier	6	8	2
Pickett 71	7	13	6
Ransom	9	5	1
Williams	8	14	7
Calland	10	3	10
Clark 63	11	12	8
Woodworth	12	15	11
Bragg	13	6	5
Essex	-	2	-
Columbus	-	4	-

Table 18: Days from emergence to first flowering of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean days to flower		
	5 sites	5 sites	13 sites
	0-10° lat >> 1000 m	11-20° lat > 1000 m	21-30° lat 0-500 m
Hill	58	42	46
Davis	63	43	47
Forrest	53	36	45
Cobb	58	38	--
Imp. Pelican	74	52	--
Bossier	49	32	47
Pickett 71	50	33	46
Ransom	46	30	45
Williams	42	25	34
Calland	41	25	34
Clark 63	41	25	35
Woodworth	42	25	33
Bragg	52	31	46
Essex	--	31	--
Columbus	--	26	--
Mean	52	33	42
LSD (.05)	9.6	3.6	4.8

Table 19: Days from emergence to harvest of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean days to harvest		
	5 sites 0-10° lat > 1000 m	5 sites 11-20° lat > 1000 m	15 sites 21-30° lat 0-500 m
Hill	126	102	101
Davis	130	109	113
Forrest	129	104	106
Cobb	128	108	---
Imp. Pelican	139	115	---
Bossier	124	105	117
Pickett 71	122	99	115
Ransom	124	104	117
Williams	113	88	94
Calland	123	97	98
Clark 63	119	90	97
Woodworth	113	83	89
Bragg	124	100	116
Essex	---	104	---
Columbus	---	97	---
Mean	124	100	106
LSD (.05)	9.8	4.5	6.6

Table 20: Height in centimeters of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean plant height (cm)		
	6 sites	5 sites	15 sites
	0-10° lat > 1000 m	11-20° lat > 1000 m	21-30° lat 0-500 m
Hill	41	61	47
Davis	40	66	55
Forrest	40	58	52
Cobb	38	59	--
Imp. Pelican	71	96	--
Bossier	32	42	55
Pickett 71	30	36	43
Ransom	32	39	50
Williams	31	45	50
Calland	34	52	55
Clark 63	33	50	51
Woodworth	31	44	49
Bragg	34	47	58
Essex	--	45	--
Columbus	--	58	--
Mean	37	53	51
LSD (.05)	9.7	8.1	6.4

Table 21: Amount of lodging of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean lodging score		
	4 sites	5 sites	10 sites
	0-10° lat > 1000 m	11-20° lat > 1000 m	21-30° lat 0-500 m
Hill	1.4	1.9	1.6
Davis	1.0	1.2	1.6
Forrest	1.1	1.6	1.5
Cobb	0.9	1.3	---
Imp. Pelican	1.9	1.6	---
Bossier	1.0	1.0	1.5
Pickett 71	1.2	1.0	1.3
Ransom	0.9	1.0	1.4
Williams	1.2	1.2	1.3
Calland	0.9	1.0	1.4
Clark 63	1.2	1.2	1.3
Woodworth	1.1	1.2	1.2
Bragg	1.1	1.2	1.3
Essex	---	1.0	---
Columbus	---	1.0	---
Mean	1.1	1.2	1.4
LSD (.05)	-NS-	0.55	-NS-

Table 22: Amount of shattered pods of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean shattering score		
	4 sites	4 sites	9 sites
	0-10° lat	11-20° lat	21-30° lat
	> 1000 m	> 1000 m	0-500 m
Hill	1.1	1.0	1.0
Davis	1.2	1.1	1.1
Forrest	1.1	1.0	1.0
Cobb	1.4	1.0	---
Imp. Pelican	1.6	1.0	---
Bossier	1.0	1.1	1.0
Pickett 71	1.6	1.0	1.1
Ransom	1.4	1.1	1.1
Williams	1.6	1.2	1.1
Calland	1.8	1.1	1.1
Clark 63	1.4	1.0	1.0
Woodworth	1.5	1.6	1.0
Bragg	1.4	1.0	1.0
Essex	---	1.0	---
Columbus	---	1.0	---
Mean	1.4	1.1	1.0
LSD (.05)	-NS-	-NS-	-NS-

Table 23: Weight of 100 seeds in grams of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean seed weight (g/100 seeds)		
	4 sites	5 sites	14 sites
	0-10° lat > 1000 m	11-20° lat > 1000 m	21-30° lat 0-500 m
Hill	16.4	17.3	14.0
Davis	25.9	21.3	16.1
Forrest	16.1	17.3	13.5
Cobb	25.0	18.8	----
Imp. Pelican	21.6	16.0	----
Bossier	18.4	19.8	15.2
Pickett 71	17.1	18.1	14.6
Ransom	30.9	21.0	16.6
Williams	18.9	20.7	16.4
Calland	18.2	22.2	17.2
Clark 63	26.5	18.6	15.8
Woodworth	27.6	17.8	15.3
Bragg	20.2	21.2	15.8
Essex	----	18.4	----
Columbus	----	20.1	----
Mean	21.8	19.2	15.5
LSD (.05)	-NS-	1.66	1.18

Table 24: Quality of harvested seed of cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, VI, and VII)

Cultivar	Mean seed quality score		
	5 sites 0-10° lat > 1000 m	5 sites 11-20° lat > 1000	14 sites 21-30° lat 0-500 m
Hill	1.8	2.0	2.2
Davis	2.1	2.0	2.4
Forrest	2.0	2.6	2.8
Cobb	1.9	2.4	---
Imp. Pelican	2.1	1.7	---
Bossier	1.8	2.4	2.3
Pickett 71	2.0	2.6	2.4
Ransom	2.2	2.5	2.3
Williams	1.8	2.7	2.3
Calland	2.5	3.3	2.9
Clark 63	2.0	2.5	2.2
Woodworth	1.7	2.7	2.4
Bragg	2.6	2.1	2.5
Essex	---	2.6	---
Columbus	---	2.4	---
Mean	2.0	2.4	2.4
LSD (.05)	0.40	0.77	0.43

Table 25: Selected agronomic characteristics of cultivars observed in the fourth ISVEX conducted in zone X

Cultivar	Grain yield (kg/ha)	Means of observations at 8 sites, 31-40°, 0-500m		
		Rank of grain yield	Days to flower	Days to harvest
Williams	3324	1	39	118
Amsoy 71	3131	2	36	115
Woodworth	3085	3	40	111
Beeson	3081	4	36	115
Calland	3025	5	38	122
Wells	3007	6	36	112
Cutler 71	3003	9	43	125
Hodgson	2944	7	34	102
Corsoy	2928	8	36	110
56 Clark 63	2868	10	40	122
Hark	2799	11	35	111
Steele	2757	12	35	101
Mean	2996	--	37	114
LSD (.05)	-NS-	--	2.4	5.2

Table 25 (cont'd): Selected agronomic characteristics of cultivars observed in the fourth ISVEX in zone X

Cultivar	Plant height (cm)	Lodging score	Means of observations at 8 sites, 31-40°, 0-500m		
			Shattering score	Seed weight ¹ / (g/100 seeds)	Seed quality score
Williams	91	1.5	1.1	19.3	1.8
Amsoy 71	89	2.4	1.0	18.4	2.7
Woodworth	85	1.6	1.1	16.7	2.0
Beeson	87	2.1	1.1	18.9	2.8
Calland	99	2.8	1.0	18.0	2.8
Wells	80	1.3	1.0	16.2	2.9
Cutler 71	100	2.2	1.2	18.6	2.4
Hodgson	70	1.2	1.0	17.2	2.0
Corsoy	76	1.8	1.1	16.6	2.5
Clark 63	94	2.3	1.1	16.4	2.3
Hark	82	1.8	1.0	17.3	2.5
Steele	72	1.5	1.0	17.9	2.1
Mean	85	1.9	1.1	17.6	2.4
LSD (.05)	6.4	0.61	-NS-	1.14	0.51

¹/ Mean from 7 sites only

Table 26: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (I, II, and IV)

Cultivar	Mean protein and oil content (%)									
	8 sites			1 site 0-10° lat			10 sites 11-20° lat 0-500 m			
	Protein	Oil	Protein	Oil	Protein	Oil	Protein	Oil	Protein	Oil
Bossier	41.4	1/	22.2	42.8	(5)	22.5	44.7	(1)	21.7	
Imp. Pelican	41.2	(2)	22.6	42.0	(7)	22.8	42.7	(5)	23.1	
Bragg	41.0	(3)	22.8	42.2	(6)	22.6	42.5	(7)	22.5	
Pickett 71	40.0	(4)	23.0	42.0	(9)	21.9	42.6	(6)	23.1	
Calland	39.8	(5)	21.6	44.5	(1)	19.6	42.5	(8)	21.6	
Jupiter	39.6	(6)	23.5	41.0	(15)	23.8	--	--	--	
Davis	39.6	(7)	22.5	43.2	(3)	21.6	41.8	(10)	22.5	
Forrest	39.4	(8)	21.9	41.0	(14)	22.3	41.5	(11)	22.3	
Williams	39.2	(9)	23.2	41.7	(11)	23.8	42.9	(3)	23.3	
Clark 63	39.2	(10)	23.0	41.2	(12)	22.6	42.9	(4)	22.8	
Cobb	38.5	(11)	23.1	41.0	(15)	22.4	39.0	(14)	23.8	
Ransom	38.3	(12)	24.8	41.9	(10)	24.6	40.7	(13)	24.4	
Hill	37.7	(13)	22.2	38.8	(16)	22.9	41.0	(12)	22.2	
Woodworth	37.7	(14)	23.3	42.0	(8)	22.6	42.2	(9)	23.9	
Essex	--	--	--	44.4	(2)	21.4	--	--	22.5	
Columbus	--	--	--	42.9	(4)	21.4	43.1	(2)	22.5	
Mean	39.5	--	22.8	42.0	--	22.5	42.1	--	22.8	

1/ Ranking of mean protein content within environmental zone

Table 27: Percent protein and oil in cultivars observed in the first joint INTSOY/ITTA Soybean Variety Evaluation Experiment conducted in zone I

Cultivar	Mean protein and oil content (%)		
	6 sites		Oil
	0-10° lat	0-500 m	
	Protein		
TGm 294-4-2371	47.5	19.2	
TGm 256-1-b	47.1	19.6	
Bossier	45.8	22.4	
TGx 66-5100	45.1	20.3	
TGm 255-2-4341	44.8	23.0	
TGm 210-1-2363	44.8	21.9	
Davis	44.5	22.4	
Imp. Pelican	44.3	23.0	
59 TGm 249-4-b	44.2	23.3	
TGm 220-1-2205	44.2	22.2	
Jupiter	43.8	23.8	
Williams	43.2	24.3	
TGX 13-3-2644	42.8	23.2	
Cobb	40.9	24.4	
Mean	44.5	22.4	

Table 28: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (III, V, and VI)

Cultivar	Mean protein and oil content (%)											
	6 sites			1 site			4 sites					
	0-10° lat	11-20° lat	500-1000 m	11-20° lat	500-1000 m	> 1000 m	11-20° lat	500-1000 m	> 1000 m	Protein	Oil	Oil
Protein	Oil	Oil	Protein	Oil	Oil	Protein	Oil	Oil	Protein	Oil	Oil	Oil
Imp. Pelican	45.5	(1)	19.1	42.2	(2)	18.8	42.5	(1)	20.7			
Bossier	44.5	(2)	19.9	--	--	--	42.1	(3)	21.3			
Williams	44.2	(3)	19.7	42.0	(4)	22.8	40.3	(10)	22.2			
Calland	45.8	(4)	19.4	41.0	(5)	22.3	41.2	(7)	21.2			
Clark 63	43.7	(5)	20.2	39.9	(6)	23.3	39.7	(11)	22.2			
Bragg	43.6	(6)	19.8	--	--	--	41.3	(6)	21.2			
Woodworth	43.2	(7)	19.5	37.4	(14)	24.3	38.8	(15)	22.2			
Davis	42.7	(8)	20.6	39.6	(8)	23.4	41.8	(5)	20.9			
Ransom	42.7	(9)	22.1	37.9	(13)	25.6	40.4	(9)	23.3			
Pickett 71	42.3	(10)	21.1	39.8	(7)	24.3	41.1	(8)	21.9			
Hill	41.8	(11)	19.1	39.0	(11)	22.3	39.4	(12)	21.0			
Cobb	41.3	(12)	20.8	38.7	(12)	24.9	39.2	(14)	22.7			
Jupiter	--	--	--	43.9	(1)	12.6	--	--	--			
Columbus	--	--	--	42.0	(3)	23.1	42.0	(4)	21.3			
Cutler 71	--	--	--	39.6	(9)	23.2	--	--	--			
Forrest	--	--	--	39.3	(10)	22.8	39.4	(13)	21.4			
Essex	--	--	--	--	--	--	42.1	(2)	20.6			
Mean	43.2		20.1	39.8		23.4	40.8		21.6			

Table 29: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (VII, VIII, and IX)

Cultivar	Mean protein and oil content (%)							
	8 sites 21-30° lat 0-500 m		3 sites 21-30° lat 500-1000 m		2 sites 21-30° lat > 1000 m			
	Protein	Oil	Protein	Oil	Protein	Oil	Protein	Oil
Bossier	43.6 (1)	20.7	44.8 (2)	19.8	41.2 (2)	16.1		
Cutler 71	43.0 (2)	22.0	44.8 (3)	20.0	39.6 (7)	18.7		
Bragg	42.6 (3)	21.6	42.8 (7)	20.4	39.7 (6)	16.7		
Calland	42.1 (4)	21.3	44.8 (1)	18.2	41.0 (3)	19.1		
Williams	41.9 (5)	22.6	44.4 (4)	20.4	38.5 (13)	20.1		
Davis	41.4 (6)	22.4	42.6 (8)	21.0	38.8 (11)	18.9		
61 Clark 63	41.3 (7)	22.7	43.8 (5)	21.2	41.9 (1)	19.2		
Pickett 71	40.9 (8)	22.6	43.4 (6)	20.7	39.6 (8)	16.4		
Forrest	40.8 (9)	21.8	--	--	38.6 (12)	18.1		
Woodworth	40.6 (10)	23.6	41.3 (10)	20.8	39.0 (10)	19.6		
Ransom	40.3 (11)	24.3	41.0 (11)	23.2	35.5 (14)	19.5		
Hill	40.0 (12)	21.5	42.5 (9)	19.7	40.3 (4)	16.5		
Wells	--	--	--	--	40.1 (5)	19.6		
Beeson	--	--	--	--	39.5 (9)	19.6		
Mean	41.5	22.2	43.2	20.5	39.5	18.6		

Table 30: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in similar environmental zones (X, XI, and XII)

Cultivar	Mean protein and oil content (%)					
	4 sites		1 site		1 site	
	31-40° lat	0-500 m	31-40° lat	501-1000 m	31-40° lat	> 1000 m
	Protein	Oil	Protein	Oil	Protein	Oil
Columbus	41.7 (1)	20.4 (1)	43.4 (1)	17.5 (1)	39.9 (11)	20.9 (11)
Cutler 71	41.7 (2)	21.7 (2)	39.9 (11)	21.0 (11)	41.5 (8)	20.5 (8)
Clark 63	41.6 (3)	21.4 (3)	41.8 (4)	20.3 (4)	41.7 (7)	21.5 (7)
Beeson	41.3 (4)	21.7 (4)	41.8 (2)	18.9 (2)	40.0 (9)	21.3 (9)
Steele	41.2 (5)	21.6 (5)	41.7 (5)	19.9 (5)	43.7 (1)	21.8 (1)
Wells	40.6 (6)	21.7 (6)	40.7 (9)	21.2 (9)	--	--
Williams	40.4 (7)	21.9 (7)	41.0 (8)	20.8 (8)	42.2 (6)	20.7 (6)
Calland	40.3 (8)	20.8 (8)	41.2 (6)	20.3 (6)	42.7 (4)	20.8 (4)
Corsoy	40.2 (9)	21.0 (9)	41.8 (3)	18.9 (3)	42.3 (5)	20.7 (5)
Hark	40.1 (10)	21.2 (10)	41.1 (7)	19.5 (7)	39.2 (13)	22.6 (13)
Hodgson	39.6 (11)	22.8 (11)	40.5 (10)	20.9 (10)	40.0 (10)	23.4 (10)
Woodworth	39.3 (12)	21.7 (12)	38.8 (12)	21.0 (12)	39.5 (12)	22.8 (12)
Amsoy 71	38.8 (13)	22.1 (13)	38.3 (13)	20.6 (13)	38.4 (15)	22.0 (15)
Altona	--	--	--	--	43.5 (2)	17.3 (2)
Forrest	--	--	--	--	42.8 (3)	16.4 (3)
Swift	--	--	--	--	39.2 (14)	22.4 (14)
Mean	40.5	21.5	40.8	20.2	41.0	21.2

Table 31: Percent protein and oil in cultivars observed in the fourth ISVEX conducted in zone XIII

Cultivar	Mean protein and oil content (%)		
	3 sites		Oil
	> 41° lat	≤ 0 m	
	Protein		
Wells	42.8	19.3	
Beeson	40.3	19.8	
Woodworth	40.2	19.8	
Calland	39.7	20.6	
Williams	39.3	20.1	
Clark 63	38.7	20.7	
Mean	40.2	20.0	

Table 32: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone I

Cultivar	Yield (kg/ha)	Mean for two years				
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant	Seed weight (g/100 seeds)
Davis	2484	31	98	33	22	19.0
Jupiter	2327	38	111	66	32	19.2
Forrest	2280	30	92	34	24	15.9
Imp. Pelican	2278	35	97	69	32	15.1
Williams	2132	28	88	42	20	19.3
Bossier	2084	32	95	34	22	17.8
Mean	2264	32	97	46	25	17.7

Table 33: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone I

Cultivar	Yield (kg/ha)	Mean for three years				
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant	Seed weight (g/100 seeds)
Davis	2495	31	97	34	24	19.0
Jupiter	2418	38	110	67	34	19.3
Imp. Pelican	2328	35	97	69	34	15.1
Bossier	2268	33	96	39	25	17.8
Forrest	2249	30	91	34	26	16.0
Williams	2163	28	88	43	21	19.7
Mean	2320	32	96	48	27	17.8

Table 34: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone III

Cultivar	Yield (kg/ha)	Mean for two years			
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	1722	66	131	40	22
Forrest	1674	58	132	43	22
Bossier	1568	58	129	38	22
Williams	1472	46	121	32	18
Imp. Pelican	1468	74	142	68	29
Mean	1581	60	131	44	23
					18.4

Table 35: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone IV

Cultivar	Yield (kg/ha)	Mean for two years			
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2266	33	96	42	30
Forrest	2123	30	93	40	30
Cobb	1976	31	98	38	30
Williams	1966	28	86	48	22
Bossier	1874	30	96	34	27
Clark 63	1844	28	88	48	25
Mean	2008	30	93	42	27
					16.9
					18.6
					17.1
					17.2
					16.7
					15.0

Table 36: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone IV

Cultivar	Yield (kg/ha)	Mean for three years			
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant
Davis	2227	34	98	40	30
Forrest	2050	31	94	38	32
Bossier	2019	33	99	40	29
Williams	1983	29	87	47	23
Clark 63	1874	29	89	48	25
Mean	2031	31	93	43	28

Table 37: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone VII

Cultivar	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Mean for two years	
					Pods per plant	Seed weight (g/100 seeds)
Davis	2348	46	108	48	32	15.6
Bossier	2248	44	113	50	36	14.1
Forrest	2208	40	102	46	32	13.1
Williams	1951	32	92	48	24	16.2
Clark 63	1840	33	96	49	24	15.4
Woodworth	1586	32	89	45	23	14.8
Mean	2030	38	100	48	28	14.9

Table 38: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1974, 1975, and 1976 in Zone VII

Cultivar	Yield (kg/ha)	Mean for three years				
		Days to flower	Days to harvest	Plant height (cm)	Pods per plant	Seed weight (g/100 seeds)
Davis	1851	45	110	54	36	14.7
Bossier	1836	46	114	62	42	13.5
Forrest	1809	40	102	49	37	12.4
Williams	1685	31	91	50	26	15.1
Clark 63	1591	32	94	53	27	14.5
Mean	1754	39	102	54	34	14.0

Table 39: Selected agronomic characteristics of soybean cultivars observed in ISVEX trials conducted during 1975 and 1976 in Zone X

Cultivar	Yield (kg/ha)	Days to flower	Days to harvest	Plant height (cm)	Mean for two years	
						Pods per plant
Williams	2964	42	116	88	33	18.3
Amsoy 71	2709	36	114	84	32	17.8
Calland	2698	39	122	96	36	17.6
Woodworth	2654	42	112	82	34	16.0
Beeson	2646	36	114	82	30	18.2
Wells	2555	36	110	77	32	15.7
Hark	2530	35	110	78	34	17.0
Corsoy	2521	36	110	75	37	15.9
Hodgson	2509	34	102	68	34	16.3
Mean	2643	37	112	81	34	17.0

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2524.37	30.08	99.13	94.05	190.20	0.48	1.96	32.82	1.07
FORREST	2399.34	29.67	90.12	81.60	151.85	0.33	1.44	34.53	1.09
IMPROVED PELICAN	2364.84	33.62	98.35	85.72	187.65	0.36	1.59	74.13	1.86
BRAGG	2305.39	29.75	95.15	73.63	171.38	0.27	1.47	37.45	1.21
WILLIAMS	2246.42	27.07	88.23	101.62	148.20	0.33	1.18	42.21	1.04
JUPITER	2241.50	38.25	115.33	109.62	216.87	0.47	1.74	67.93	1.79
BOSSTIER	2143.38	30.22	94.33	100.32	186.72	0.42	2.09	33.16	1.07
CLARK 63	2116.71	28.67	86.93	76.42	133.95	0.38	1.37	45.31	1.20
HILL	2092.52	30.65	91.25	80.27	136.42	0.30	1.24	35.70	1.14
GRAND MEAN	2270.34	30.34	95.43	89.80	169.25	0.37	1.56	44.80	1.27
NUMBER EXPERIMENTS CONTRIBUTING	15	15	15	15	15	13	13	15	14
STANDARD ERROR OF VARIETY MEAN	110.51	6.30	1.45	5.37	13.33	0.05	0.20	2.07	0.13
COEFFICIENT OF VARIATION	37.70%	20.05%	11.77%	54.94%	61.03%	97.18%	91.83%	35.85%	76.01%
5% LSD VARIETY MEANS (**=NS)	*****	2.24	4.00	17.85	37.36	0.14	0.56	5.31	0.36
CORRELATIONS AND NUMBER OF OBSERVATIONS (* - PROB=.05, ** - PROB=.01)									
YIELD	KG/HA	1.30	0.05	0.47++	-0.07	0.15++	0.07	0.10*	0.46++
DAYS TO FLOWER		54.0	54.0	54.0	54.0	54.0	46.8	46.8	50.4
DAYS TO MATURITY		0.35	1.00	0.47++	0.07	0.16++	0.20++	0.44++	0.36++
NODULE NUMBER 1		54.0	54.0	54.0	54.0	54.0	46.8	46.8	50.4
NODULE NUMBER 2		0.15++	0.15++	0.14++	0.63++	1.00	0.11+	0.22++	0.34++
NODULE WEIGHT 1		0.20++	0.20++	0.22++	0.13++	0.11+	0.10+	0.59++	0.10+
NODULE WEIGHT 2		0.10+	0.14++	0.25++	-0.07	0.22++	0.59++	0.10+	0.11+
PLANT HEIGHT		45.8	46.3	46.3	46.8	46.8	46.8	46.8	43.2
PLANTS HARVEST		0.18++	0.44++	0.43++	0.02	0.18++	0.12++	1.00	0.51++
LODGING		54.0	54.0	54.0	54.0	54.0	46.8	46.8	50.4
SHATTER		0.02	0.23++	-0.05	-0.02	-0.02	-0.03	-0.02	0.09
PODS PER PLANT		50.4	50.4	50.4	50.4	50.4	43.2	43.2	50.4
100 SEED WEIGHT		54.0	54.0	54.0	54.0	54.0	46.8	46.8	50.4
QUALITY OF SEED		50.4	50.4	50.4	50.4	50.4	46.8	46.8	50.4

TABLE 40 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.13	224.98	21.25	18.66	1.77
FORREST	1.02	220.80	22.45	14.96	1.98
IMPFOVED PELICAN	1.10	222.35	33.25	14.39	1.36
BRAGG	1.04	219.68	18.91	18.33	1.73
WILLIAMS	1.02	221.37	18.15	18.43	1.64
JUPITER	1.08	207.50	31.12	18.33	2.23
BOSSLER	1.06	204.10	21.75	17.02	1.96
CLARK 63	1.10	232.88	21.21	16.96	1.68
HILL	1.02	217.22	23.05	15.90	1.73
NUMBER EXPERIMENTS	GRAND MEAN	1.06	219.04	23.45	17.00
CONTRIBUTING	1.13	15	15	15	1.79
STANDARD ERROR OF VARIETY MEAN	0.04	5.67	1.65	0.34	1.14
COEFFICIENT OF VARIATION	29.45%	20.05%	54.39%	15.70%	69.76%
5% LSD VARIETY MEANS (**NS=NS)	*****	15.88	4.62	0.97	0.47
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD	KG/HA	0.32	0.19++	0.43++	0.68++
DAYS TO FLOWER		458	540	540	504
DAYS TO MATURITY		-0.32	-0.15++	0.34++	0.17++
NODULE NUMBER 1		0.23++	0.07	0.47++	0.45++
NODULE NUMBER 2		-0.05	-0.06	-0.14++	0.14++
PLANT HEIGHT		458	540	540	504
NODULE WEIGHT 1		-0.02	-0.05	0.25	0.27++
NODULE WEIGHT 2		458	540	540	504
LODGING		0.03	0.21++	0.03	0.15++
SHATTER		396	468	463	432
PLANTS HARVEST		0.20	0.24++	0.05	-0.03
PODS PER PLANT		458	504	504	468
100 SEED WEIGHT		1.00	0.12++	0.12++	0.26++
QUALITY OF SEED		458	540	540	432
		0.31++	0.53++	0.21++	-0.08
		468	540	540	504
		0.01	0.09	0.00	0.14++
		458	504	504	468
		0.29	-0.12++	0.37++	0.31++
		458	540	540	504
		0.31++	0.10+	0.00	0.00
		432	540	540	504
		0.00	0.12++	-0.12++	-0.12++
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.31++	0.00	0.00	0.00
		432	540	540	504
		0.00	0.00	0.00	0.00
		458	540	540	504
		0.12++	0.37++	0.10+	0.10+
		458	540	540	504
		0.			

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/ha	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2137.65	28.35	91.75	138.44	224.63	1.62	2.40	32.42	1.40
TGX 13-3-2644	2135.91	41.10	106.50	164.88	340.63	1.90	3.12	63.26	2.30
JUPITER	2132.65	44.25	105.33	196.94	301.00	1.38	2.17	58.20	2.40
TGM 210-1-2363	2025.89	38.55	95.88	131.75	213.44	1.26	1.88	50.78	2.05
TGM 220-1-2205	1972.63	44.20	103.25	177.69	231.00	1.42	2.63	43.50	2.35
TGM 256-1-B	1942.33	37.95	97.75	162.56	273.69	1.60	2.90	56.36	2.05
TGM 294-4-2371	1928.02	41.05	103.21	158.38	260.44	1.29	2.26	57.74	1.95
IMPROVED PELICAN	1898.64	33.65	91.25	117.00	210.81	1.06	1.70	67.05	1.85
TGM 255-2-4341	1871.35	35.55	100.21	161.50	299.13	1.21	2.62	53.94	2.00
TGM 249-4-B	1659.40	35.50	101.08	162.44	357.00	1.59	2.98	60.18	2.70
WILLIAMS	1787.72	26.50	83.00	160.38	228.88	1.44	2.37	42.30	1.95
COBB	1782.37	27.55	90.00	124.94	262.88	1.97	3.07	32.61	1.10
TGX 66-5100	1628.81	36.25	97.83	111.13	198.13	1.46	2.45	61.05	2.05
CLARK 63	1667.56	25.50	85.08	149.00	233.56	1.44	2.56	43.20	2.10
BOSSIER	1450.57	25.30	87.54	145.44	262.63	1.62	2.88	26.93	1.30
GRAND MEAN	1886.78	34.75	95.98	150.83	259.85	1.48	2.53	49.97	1.97
NUMBER EXPERIMENTS CONTRIBUTING	6	5	6	4	3	3	3	6	5
STANDARD ERROR OF VARIETY MEAN	138.50	2.40	3.20	21.33	37.46	0.25	0.43	3.83	0.36
COEFFICIENT OF VARIATION	35.96%	30.92%	16.59%	56.56%	57.67%	59.38%	58.42%	37.54%	80.61%
5% LSD VARIETY MEANS (***)=NS)	*****	6.01	9.17	*****	*****	*****	*****	10.80	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS				(+ - PROB=.05, ++ - PROB=.01)					
YIELD KG/ha	1.00	0.25++	0.12+	0.41++	0.65++	0.48++	0.72++	0.46++	0.15+
DAYS TO FLOWER	0.25++	1.00	0.48++	0.21++	0.26++	0.24++	0.27++	0.27++	0.01
DAYS TO MATURITY	0.12+	0.48++	1.00	0.14+	0.30++	0.18+	0.28++	0.27++	0.01
MODULE NUMBER 1	0.41++	0.21++	0.14+	1.00	0.77++	0.91++	0.86++	0.05	-0.24++
MODULE NUMBER 2	0.65++	0.26++	0.30++	0.77++	1.00	0.88++	0.93++	0.33++	-0.14
MODULE WEIGHT 1	0.48++	0.24++	0.18+	0.91++	0.38++	1.00	0.95++	0.07	-0.51++
MODULE WEIGHT 2	0.72++	0.27++	0.28++	0.86++	0.93++	0.95++	1.00	0.31++	-0.54++
PLANT HEIGHT	0.46++	0.27++	0.27++	0.05	0.33++	0.07	0.31++	1.00	0.36++
LOGGING	0.15+	-0.01	0.01	-0.24++	-0.14	-0.51++	-0.54++	0.36++	1.00
SHATTER	-0.54++	-0.01	0.13+	-0.12	-0.12	-0.13	-0.23	-0.22++	-0.12+
PLANTS HARVEST	0.39++	-0.10	-0.28++	-0.19++	-0.27++	-0.40++	-0.41++	0.21++	0.22++
PODS PER PLANT	0.21++	0.21++	0.35++	-0.22++	0.48++	-0.20++	0.44++	0.47++	0.28++
100 SEED WEIGHT	0.60++	-0.02	-0.11	0.38++	0.52++	0.45++	0.57++	0.07	-0.21++
QUALITY OF SEED	-0.25++	-0.01	-0.02	0.05	0.12	0.09	0.16	-0.24++	-0.12

TABLE 41 COMBINED ANALYSIS OF SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.00	166.54	24.12	18.92	1.50
TGX 13-3-2644	1.10	148.71	35.43	16.65	1.58
JUPITER	0.95	104.29	43.30	18.32	2.50
TGM 210-1-2363	1.95	163.00	31.48	16.02	1.75
TGM 220-1-2205	1.25	114.13	40.65	14.00	2.08
TGM 256-1-B	0.95	164.54	31.28	13.57	1.58
TGM 294-4-2371	1.05	182.50	27.54	15.57	1.33
IMPROVED PELICAN	0.85	134.04	43.98	13.76	1.58
TGM 255-2-4341	1.10	140.79	45.20	12.67	1.92
TGM 249-4-B	1.05	100.17	44.58	15.27	1.58
WILLIAMS	0.80	151.46	21.13	20.04	1.75
COBB	1.25	135.67	26.80	19.45	1.83
TGX 66-5100	1.05	152.79	33.66	14.93	1.33
CLARK 63	0.90	156.63	22.02	18.26	2.33
BOSSIER	0.85	124.96	25.17	18.04	2.17
GRAND MEAN	1.07	142.68	33.09	16.36	1.79
NUMBER EXPERIMENTS CONTRIBUTING	5	6	6	5	3
STANDARD ERROR OF VARIETY MEAN	0.19	11.95	3.27	0.52	0.25
COEFFICIENT OF VARIATION	77.16%	41.03%	48.38%	14.28%	48.74%
5% LSD VARIETY MEANS (**NS)	0.52	33.71	9.22	1.48	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD KG/HA	-0.54++	0.394+	0.254+	0.60++	-0.25++
DAYS TO FLOWER	-0.01	-0.10	0.21++	-0.02	-0.01
DAYS TO MATURITY	0.13+	-0.28++	0.35++	-0.11	-0.02
NODULE NUMBER 1	-0.12	-0.19++	-0.22++	0.38++	0.05
NODULE NUMBER 2	-0.12	-0.74+	0.48++	0.52++	0.12
NODULE WEIGHT 1	-0.13	-0.40++	-0.20++	0.45++	0.09
NODULE WEIGHT 2	-0.23+	-0.41++	0.44++	0.57++	0.16
PLANT HEIGHT	-0.22++	0.21++	0.47++	0.07	-0.21++
LOGGING	-0.12+	0.22++	0.28++	-0.21++	-0.12
SHATTER	1.00	-0.23+	-0.47++	-0.01	-0.41++
PLANTS HARVEST	-0.47++	1.00	-0.26++	0.13+	-0.42++
PODS PER PLANT	-0.01	-0.26++	1.00	0.06	-0.07
100 SEED WEIGHT	-0.41++	0.13+	0.08	1.00	-0.06
QUALITY OF SEED	0.15+	-0.42++	-0.07	-0.06	1.00

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	YIELD KG./HA	DAYS TO FLOWER	DAYS TO MATURITY	NUDULE NUMBER 1	NUDULE NUMBER 2	NUDULE WEIGHT 1	NUDULE WEIGHT 2	PLANT HEIGHT	LODGING
HILL	1990.24	58.40	125.80	100.94	132.44	2.81	1.33	40.60	1.38
DAVIS	1933.88	63.40	129.55	94.81	126.88	3.42	1.61	39.99	1.00
FCREST	1866.75	52.95	128.90	101.25	150.50	3.10	1.57	40.39	1.13
CCBE	1696.75	58.45	128.50	100.38	127.63	3.07	1.50	38.33	0.88
IMPROVED PELICAN	1660.56	73.50	138.65	70.63	116.63	3.48	1.46	70.61	1.88
BCSSIER	1615.56	49.30	123.60	156.13	145.31	3.54	1.61	32.26	1.00
PICKETT 71	1590.35	50.15	122.00	86.88	106.81	2.31	1.24	30.33	1.19
RANSOM	1457.89	46.45	124.00	186.88	169.06	3.52	1.48	31.75	0.88
WILLIAMS	1448.34	42.20	113.45	176.63	165.00	3.46	1.63	31.47	1.19
CALLAND	1339.91	40.95	123.10	102.56	116.69	2.53	1.42	33.60	0.94
CLARK 63	1173.84	40.55	119.00	150.69	130.06	3.12	1.35	33.43	1.25
WCOLLORTH	1128.38	41.55	112.95	134.13	124.75	2.52	1.25	30.60	1.06
ERAGG	1057.20	52.50	124.00	114.94	137.56	2.64	1.57	33.64	1.13
GRAND MEAN	1535.36	51.57	124.12	121.25	134.56	3.04	1.46	37.46	1.14
NUMBER EXPERIMENTS CONTRIBUTING	6	5	5	4	4	2	2	6	4
STANDARD ERROR OF VARIETY MEAN	133.71	3.38	3.46	14.04	14.37	0.48	0.32	3.42	0.23
COEFFICIENT OF VARIATION	42.66%	29.34%	12.48%	46.31%	42.73%	44.47%	62.75%	44.69%	81.10%
5% LSD VARIETY MEANS (**NS=NS)	378.24	9.62	9.85	40.26	40.26	*****	*****	9.67	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS									
YIELD KG./HA	1.00	0.21++	0.12	-0.09	0.14+	-0.10	0.30++	0.38++	-0.16+
DAYS TO FLOWER	0.21++	260	260	208	208	104	312	208	208
DAYS TO MATURITY	0.12	0.84++	1.00	-0.02	0.27++	-0.29+	0.35++	0.56++	0.04
NUDULE NUMBER 1	0.12	0.84++	1.00	0.33++	0.56++	0.00	52	260	208
NUDULE NUMBER 2	0.14+	0.27++	0.56++	0.60++	0.60++	0.00	0.00	0.37++	-0.13
NUDULE WEIGHT 1	-0.10	-0.29+	0.00	0.14	-0.01	1.00	-0.33++	0.58++	0.00
NUDULE WEIGHT 2	0.30++	0.35++	0.00	0.03	0.63++	-0.33++	1.00	-0.20+	52
PLANT HEIGHT	0.38++	0.56++	0.37++	-0.06	0.08	0.58++	-0.20+	1.00	0.35++
LOGGING	-0.16+	0.04	-0.13	0.39++	0.07	0.00	0.00	0.35++	1.00
SHATTER	0.08	0.08	0.18++	0.23+	-0.02	0.00	0.00	0.25++	-0.14+
PLANTS HARVEST	0.37++	-0.36++	-0.46++	0.01	-0.24++	0.24	0.22	0.21++	0.03
PODS PER PLANT	0.51++	0.56++	0.39++	0.16+	0.35++	-0.51++	0.48++	0.68++	0.21++
100 SEED WEIGHT	0.06	-0.06	-0.03	0.29++	0.25++	0.45++	0.00	0.07	0.10
QUALITY OF SEED	-0.00	-0.51++	-0.58++	-0.33++	-0.25++	-0.05	0.06	-0.09	-0.05

TABLE 42 COMBINED ANALYSIS OF SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
HILL	1.13	200.10	22.41	16.36	1.75
DAVIS	1.25	188.15	22.88	25.88	2.10
PCRFEST	1.13	174.30	20.37	16.13	1.95
CCBB	1.38	174.30	24.79	25.04	1.90
IMPROVED PELICAN	1.63	169.00	37.07	21.65	2.10
BESSIER	1.00	167.05	19.69	18.38	1.85
PICKETT 71	1.56	171.55	17.78	17.13	1.95
RANSOM	1.44	182.10	18.17	30.91	2.20
WILLIAMS	1.56	176.10	15.74	18.91	1.80
CALLAND	1.75	193.45	14.67	18.25	2.50
CLARK 63	1.38	182.80	15.58	26.51	1.95
WOODWORTH	1.50	193.10	14.65	27.64	1.70
BRAGG	1.44	186.20	13.01	20.24	2.55
GRAND MEAN	1.39	181.40	19.76	21.77	2.02
NUMBER EXPERIMENTS CONTRIBUTING	4	5	6	4	5
STANDARD ERROR OF VARIETY MEAN	0.16	7.12	2.53	4.92	0.14
COEFFICIENT OF VARIATION	44.82%	17.56%	62.72%	90.37%	31.29%
5% LSD VARIETY MEANS (**NS=NS)	*****	20.25	7.15	*****	0.40

(+ = PROB=.05, ++ = PROB=.01)

CORRELATIONS AND NUMBER OF OBSERVATIONS

YIELD	KG/HA	0.08	0.37++	0.51++	0.06	-0.00
DAYS TO FLOWER		208	260	312	208	260
	0.08	-0.36++	0.56++	-0.06	-0.51++	
DAYS TO MATURITY		208	260	260	156	260
	0.18++	-0.46++	0.39++	-0.03	-0.58++	
NODULE NUMBER 1		208	260	260	156	260
	0.23+	0.01	0.16+	0.29++	-0.33++	
NODULE NUMBER 2		104	156	208	156	156
	-0.02	-0.02++	0.35++	0.25++	-0.25++	
NODULE WEIGHT 1		104	156	208	156	156
	0.00	0.24	-0.51++	0.45++	-0.05	
NODULE WEIGHT 2		0.00	0.22	0.48++	0.00	0.06
PLANT HEIGHT		52	52	104	104	52
	0.25++	0.21++	0.68++	0.07	-0.09	
LOGGING		208	260	312	208	260
	-0.14+	0.03	0.21++	0.10	-0.05	
SHATTER		208	208	208	156	208
	1.00	0.31++	0.17+	-0.14	0.04	
PLANTS HARVEST		208	208	208	156	208
	0.31++	1.00	0.04	0.05	0.47++	
PODS PER PLANT		208	260	260	156	260
	0.17+	0.04	1.00	-0.01	-0.11	
100 SEED WEIGHT		-0.14	0.05	-0.01	1.00	-0.21++
	156	156	208	208	156	
QUALITY OF SEED		0.04	0.47++	-0.11	-0.21++	1.00
	208	260	260	156	260	

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	DAYS TO MATURE	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	DAYS TO NODULE WEIGHT 1	DAYS TO NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
DAVIS	2465.90	33.23	93.92	135.31	258.27	0.88	3.33	49.18	1.42	
CALLAND	2356.00	25.65	88.36	84.77	203.63	0.62	2.96	58.78	1.56	
FORREST	2289.91	29.30	90.92	99.25	242.98	0.64	2.68	42.65	1.17	
COBB	2236.15	30.25	97.43	105.44	244.85	0.69	2.95	44.20	1.22	
BRAGG	2206.06	28.80	92.61	100.98	278.25	0.70	3.11	42.07	1.25	
RANSOM	2192.60	28.77	94.34	119.23	285.21	0.71	2.93	37.73	1.14	
CLARK 63	2101.88	25.95	86.77	92.21	193.87	0.51	2.49	54.64	1.69	
WILLIAMS	2091.88	26.08	85.55	119.02	234.00	0.65	2.84	53.72	1.38	
PICKETT 71	2060.66	28.65	92.31	72.60	171.42	0.66	2.43	31.24	1.09	
HILL	1969.84	31.42	87.72	92.15	170.63	0.63	1.99	40.24	1.44	
BOSSIER	1953.32	27.75	95.11	111.35	251.29	0.82	3.09	35.95	1.16	
IMPROVED PELICAN	1856.71	39.07	102.27	122.13	221.15	1.00	2.33	85.89	2.09	
WOODWORTH	1685.35	25.37	83.98	84.40	166.71	0.53	2.35	47.91	1.50	
GRAND MEAN	2112.79	29.25	91.64	102.99	224.79	0.70	2.73	48.01	1.39	
NUMBER EXPERIMENTS CONTRIBUTING	16	15	16	12	13	9	9	16	16	
STANDARD ERROR OF VARIETY MEAN	119.27	0.74	1.75	10.88	18.20	0.07	0.22	2.50	0.12	
COEFFICIENT OF VARIATION	45.16%	19.47%	15.25%	73.23%	58.40%	62.38%	48.39%	41.58%	71.55%	
5% LSD VARIETY MEANS (**NS=NS)	332.85	2.05	4.88	30.45	50.89	0.20	0.62	6.96	0.35	
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ = PROB=.05, ++ = PROB=.01)										
YIELD KG/HA	1.00	0.29++	0.31++	0.29++	0.28++	0.01	0.15++	0.23++	-0.13++	
DAYS TO FLOWER	0.29++	1.00	0.48++	0.29++	0.06	0.35++	0.11+	0.36++	0.09+	
DAYS TO MATURITY	0.31++	0.48++	1.00	0.35++	0.50++	0.17++	0.27++	-0.09++		
ODULE NUMBER 1	0.29++	0.29++	0.35++	1.00	0.53++	0.64++	0.40++	0.37++	-0.00	
ODULE NUMBER 2	0.28++	0.06	0.50++	0.53++	1.00	0.02	0.59++	0.28++	-0.07	
ODULE WEIGHT 1	0.01	0.35++	0.17++	0.64++	0.02	1.00	0.31++	0.08	-0.07	
ODULE WEIGHT 2	0.15++	0.11+	0.38++	0.40++	0.59++	0.31++	1.00	-0.04	-0.25++	
PLANT HEIGHT	0.23++	0.36++	0.27++	0.37++	0.28++	0.08	-0.04	1.00	0.40++	
LOGGING	-0.13++	0.09+	-0.09++	-0.00	-0.07	-0.07	-0.25++	0.40++	1.00	
SHATTER	-0.07	-0.09+	-0.19++	-0.14++	-0.18++	-0.06	-0.03	-0.06	-0.05	
PLANTS HARVEST	-0.12++	-0.25++	-0.16++	-0.03	-0.26++	0.04	-0.24++	-0.03	0.18++	
PODS PER PLANT	0.36++	0.44++	0.29++	0.34++	0.22++	0.15++	0.47++	0.05	-0.01	
100 SEED WEIGHT	0.40++	0.16++	0.25++	0.13++	-0.10++	0.14++	0.37++	-0.13++	-0.13++	
QUALITY OF SEED	-0.17++	-0.14++	0.24++	0.11+	0.40++	-0.02	0.27++	0.16++	0.16++	

TABLE 43 COMBINED ANALYSIS OF SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.17	217.64	31.87	16.36	2.56
CALIAND	1.29	210.73	24.57	19.40	2.88
FORREST	1.08	199.61	28.65	14.97	2.94
COBB	1.17	186.08	30.54	16.18	2.75
BRAGG	1.00	206.81	25.69	16.37	3.04
RANSOM	1.02	204.00	23.57	17.44	3.06
CLARK 63	1.06	202.17	23.29	17.44	2.56
WILLIAMS	1.10	206.48	21.37	18.68	2.38
PICKETT 71	1.25	185.30	22.41	16.73	2.63
HILL	1.25	210.69	25.75	15.85	2.50
BOSSIER	1.02	165.77	24.83	16.70	2.77
IMPROVED PELICAN	1.08	154.77	39.94	12.84	2.54
WOODWORTH	1.37	199.39	20.97	16.88	2.79
NUMBER EXPERIMENTS	GRAND MEAN	1.14	196.88	26.42	16.60
CONTRIBUTING	1.13	16	14	15	13
STANDARD ERROR OF VARIETY MEAN	0.12	5.01	2.11	0.50	0.22
COEFFICIENT OF VARIATION	74.92%	20.36%	59.81%	23.44%	57.76%
5% LSD VARIETY MEANS (**NS)	*****	13.98	5.90	1.40	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD	KG/HA	-0.07	-0.12++	0.35++	0.40++
DAYS TO FLOWER		576	832	728	780
DAYS TO MATURITY		624	780	676	728
NODULE NUMBER 1		-0.19++	-0.16++	0.29++	0.25++
NODULE NUMBER 2		676	832	728	780
PLANT HEIGHT 1		-0.14++	-0.03	0.34++	0.13++
PLANT HEIGHT 2		468	624	520	572
LODGING		-0.03	-0.24++	0.05	0.37++
SHATTER		312	468	364	416
PLANTS HARVEST		-0.06	-0.04	0.15++	0.14++
PODS PER PLANT		312	468	364	416
100 SEED WEIGHT		-0.04	-0.03	0.47++	0.13++
QUALITY OF SEED		624	780	728	780

(+ - PROB=.05, ++ - PROB=.01)

COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
DAVIS	3207.31	42.70	108.80	150.90	280.05	1.98	4.00	66.41	1.20
ESSEX	3122.20	31.00	104.05	139.85	280.95	0.93	3.04	45.33	1.00
CALLAND	3114.05	25.35	96.80	87.40	211.20	0.77	2.67	51.99	1.00
COLUMBUS	3111.43	25.55	97.00	105.45	239.70	0.84	2.69	57.87	1.05
RANSOM	3060.84	29.70	103.90	91.00	285.15	0.71	2.80	39.01	1.00
COBB	3010.33	37.50	108.05	112.20	256.60	0.75	2.63	58.64	1.30
BRAGG	2933.17	31.10	100.45	80.10	307.00	0.58	2.42	47.23	1.20
BOSSIER	2838.99	31.80	104.60	127.55	245.25	0.90	2.76	41.72	1.00
HILL	2776.01	41.50	102.10	104.60	185.45	1.08	2.18	61.06	1.90
FORREST	2744.46	35.80	104.45	75.75	216.60	0.45	2.10	58.45	1.65
IMPROVED PELICAN	2518.47	52.40	114.70	157.70	215.85	1.12	2.62	95.68	1.60
PICKETT 71	2493.10	32.70	98.55	75.70	166.95	0.41	1.72	36.18	1.00
CLARK 63	2471.28	25.40	89.55	97.25	194.05	0.74	2.68	50.13	1.25
WILLIAMS	2466.94	24.80	87.60	121.15	163.30	0.79	1.91	44.87	1.15
WOODWORTH	2272.35	24.60	82.75	98.90	146.95	0.71	1.85	44.11	1.25
GRAND MEAN	2809.39	32.79	100.22	108.37	226.34	0.85	2.54	53.25	1.24
NUMBER EXPERIMENTS CONTRIBUTING	5	5	5	5	5	5	5	5	5
STANDARD ERROR OF VARIETY MEAN	157.99	1.27	1.53	17.22	25.54	0.21	0.35	2.87	0.19
COEFFICIENT OF VARIATION	25.15%	17.31%	7.06%	71.05%	50.47%	109.45%	61.13%	24.15%	70.38%
5% LSD VARIETY MEANS (**=***=NS)	447.51	3.50	4.43	48.77	72.36	0.59	0.98	8.14	0.55
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, ++ - PROB=.01)									
YIELD KG/HA	1.00	0.05	0.12+	0.17++	0.36++	0.44++	0.51++	0.17++	-0.08
DAYS TO FLOWER	300	300	300	300	300	300	300	300	300
DAYS TO MATURITY	300	1.00	0.81++	0.59++	0.47++	0.25++	0.14+	0.77++	0.44++
NODULE NUMBER 1	0.12+	0.81++	300	300	300	300	300	300	300
NODULE NUMBER 2	0.12+	0.81++	300	300	300	300	300	300	300
NODULE WEIGHT 1	0.17++	0.59++	300	300	300	300	300	300	300
NODULE WEIGHT 2	0.51++	0.47++	300	300	300	300	300	300	300
PLANT HEIGHT	0.17++	0.77++	300	300	300	300	300	300	300
LOGGING	-0.08	0.44++	300	300	300	300	300	300	300
SHATTER	-0.05	-0.07	-0.05	0.15+	0.08	-0.01	0.10	-0.04	-0.01
PLANTS HARVEST	-0.21++	-0.32++	-0.31++	-0.30++	-0.40++	-0.40++	-0.03	-0.18++	-0.19++
PODS PER PLANT	0.36++	0.57++	0.42++	0.47++	0.49++	0.23++	0.16++	0.59++	0.35++
100 SEED WEIGHT	0.54++	-0.23++	-0.01	0.09	0.27++	0.23++	0.34++	-0.10	-0.21++
QUALITY OF SEED	0.04	-0.35++	-0.19++	-0.11	-0.04	-0.12+	-0.02	-0.04	-0.04

TABLE 44. COMBINED ANALYSIS OF SITES IN ZONE VI FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.13	267.55	24.02	21.34	1.95
ESSEX	1.00	235.90	23.40	18.37	2.65
CALIAND	1.13	243.85	16.94	22.23	3.30
COLUMBUS	1.00	250.80	20.02	20.06	2.40
RANSON	1.06	250.10	17.16	20.95	2.50
COBB	1.00	229.60	27.33	18.80	2.45
BRAGG	1.00	256.75	17.73	21.24	2.10
BOSSTER	1.06	19.90	20.56	19.77	2.35
HILL	1.00	247.25	23.77	17.27	2.05
PORREST	1.00	249.80	22.34	17.28	2.60
IMPROVED PELICAN	1.00	216.00	37.75	16.02	1.70
PICKET 71	1.00	224.15	19.84	18.14	2.60
CLARK 63	1.00	265.50	18.97	18.60	2.50
WILLIAMS	1.19	264.40	18.29	20.67	2.70
WOODNORTH	1.56	245.55	17.71	17.76	2.70
GRAND MEAN	1.08	242.61	21.72	19.23	2.44
NUMBER EXPERIMENTS CONTRIBUTING	4	5	5	5	5
STANDARD ERROR OF VARIETY MEAN	0.16	8.93	2.42	0.59	0.27
COEFFICIENT OF VARIATION	58.07%	16.46%	49.83%	13.65%	50.18%
5% LSD VARIETY MEANS (**NS) ****=NS	*****	25.29	6.86	1.66	0.77
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD KG/HA	-0.05	-0.21**	0.36++	0.54++	0.04
DAYS TO FLOWER	-0.07	-0.32++	0.57++	-0.23++	-0.35++
DAYS TO MATURITY	-0.05	-0.31++	0.42++	-0.01	-0.19++
NODULE NUMBER 1	0.15+	-0.35++	0.47++	0.09	-0.11
NODULE NUMBER 2	0.08	-0.40++	0.49++	0.27++	-0.12+
NODULE WEIGHT 1	-0.01	0.00	0.23++	0.23++	-0.04
NODULE WEIGHT 2	0.10	-0.03	0.16++	0.34++	-0.02
PLANT HEIGHT	-0.04	-0.18++	0.59++	-0.10	-0.24++
LODGING	-0.01	-0.19++	0.35++	-0.21++	-0.04
SHATTER	1.00	-0.16+	0.02	0.05	0.11
PLANTS HARVEST	-0.16+	1.00	-0.51++	-0.01	0.03
PODS PER PLANT	0.02	-0.51++	1.00	0.01	-0.05
100 SEED WEIGHT	0.05	-0.01	0.01	1.00	0.24++
QUALITY OF SEED	0.11	0.03	-0.05	0.24++	1.00

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE NUMBER 1 WEIGHT	NODULE NUMBER 2 WEIGHT	PLANT HEIGHT	LODGING
DAVIS	2371.39	46.56	112.70	93.05	110.52	0.90	1.64	55.12	1.60
RANSON	2357.94	44.52	117.38	105.59	141.90	0.84	1.39	50.07	1.40
BOSSIER	2305.90	46.54	116.65	92.09	114.48	1.05	1.45	54.83	1.50
FORREST	2226.67	45.04	106.40	71.34	108.94	0.56	1.47	51.91	1.50
BRAGG	2204.21	46.38	115.80	91.09	130.48	0.75	1.36	57.82	1.33
PICKETT 71	2101.42	46.19	115.25	63.80	90.29	0.49	1.06	43.47	1.28
WILLIAMS	2029.52	34.44	93.62	72.57	105.50	0.42	1.40	50.25	1.28
CLARK 63	1997.41	34.90	96.93	64.32	101.50	0.38	1.37	50.88	1.30
HILL	1941.54	45.56	100.85	71.50	82.40	0.52	0.98	46.71	1.65
CALLAND	1938.30	34.37	97.93	55.25	92.17	0.42	1.33	55.05	1.35
WOODWORTH	1633.77	33.38	89.00	63.23	77.50	0.32	1.12	48.59	1.25
GRAND MEAN	2130.73	41.63	105.69	76.71	105.06	0.60	1.32	51.34	1.40
NUMBER EXPERIMENTS CONTRIBUTING	16	13	15	11	12	9	11	15	10
STANDARD ERROR OF VARIETY MEAN	112.11	1.70	2.33	8.11	10.98	0.12	0.14	2.30	0.14
COEFFICIENT OF VARIATION	42.59%	29.51%	17.43%	70.10%	72.38%	116.67%	70.02%	34.67%	64.98%
5% LSD VARIETY MEANS (**NS=NS)	313.28	4.77	6.65	22.75	30.76	0.33	0.39	6.42	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD KG/HA	1.00	0.38++	0.36++	0.27++	0.17++	0.26++	0.33++	0.33++	0.32++
DAYS TO FLOWER	704	572	660	528	396	484	660	660	440
DAYS TO MATURITY	572	572	523	484	528	396	0.44++	0.44++	0.49++
82 NODULE NUMBER 1	650	528	660	440	484	352	0.22++	0.22++	0.24++
NODULE NUMBER 2	0.27++	0.38++	0.50++	1.00	0.68++	0.79++	0.50++	0.19++	0.09
NODULE NUMBER 3	434	434	440	484	484	396	440	440	396
NODULE WEIGHT 1	0.17++	0.19++	0.45++	0.68++	1.00	0.49++	0.66++	0.13++	-0.03
NODULE WEIGHT 2	528	528	484	484	528	396	484	484	396
NODULE WEIGHT 3	0.26++	0.57++	0.54++	0.79++	0.49++	1.00	0.54++	0.37++	0.20++
NODE WEIGHT 2	396	336	352	396	396	396	352	352	352
PLANT HEIGHT	0.33++	0.38++	0.22++	0.50++	0.66++	0.54++	0.24++	0.17++	0.17++
PLANTS HARVEST	650	528	660	440	484	352	352	396	396
LOGGING	0.32++	0.49++	0.24++	0.09	-0.03	0.20++	0.17++	0.27++	1.00
SHATTER	-0.22	0.06	0.25++	0.15++	0.17++	0.12+	0.08	0.21++	-0.04
PLANTS HARVEST	0.21++	0.11+	0.19++	0.23++	0.40++	0.05	0.25++	0.02	0.28++
PODS PER PLANT	550	528	660	440	484	352	396	440	440
100 SEED WEIGHT	572	528	572	440	484	352	440	572	440
QUALITY OF SEED	-0.22++	0.08	0.18++	0.40	4.84	352	440	616	440
	516	484	572	440	484	396	484	572	440

TABLE 45 COMBINED ANALYSIS OF SITES IN ZONE VII FOR ISVEK-4

VARIETY OR CROSS	SHATTER OR HARVEST	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.14	239.83	26.53	16.11	2.43
RANSOM	1.36	239.52	25.81	16.65	2.30
BOSSIER	1.33	172.53	33.32	15.21	2.27
FORREST	1.03	188.83	27.33	13.50	2.82
BRAGG	1.00	210.73	27.75	15.77	2.50
PICKETT 71	1.36	190.90	27.02	14.56	2.39
WILLIAMS	1.36	231.32	26.52	16.39	2.27
CLARK 63	1.03	198.77	21.35	15.81	2.16
HILL	1.00	206.18	24.80	13.96	2.23
CALLAND	1.38	195.28	19.95	17.18	2.93
WOODWORTH	1.30	196.07	20.53	15.29	2.36
NUMBER EXPERIMENTS	GRAND MEAN	1.04	198.18	24.99	15.49
STANDARD ERROR OF VARIETY MEAN	9	15	13	14	14
COEFFICIENT OF VARIATION	0.34	6.56	1.57	0.42	0.15
5% LSD VARIETY MEANS (**NS)	23.43%	26.05%	45.42%	20.40%	47.35%
*****NS	18.63	4.41	1.18	0.43	
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD	KG/HA	-0.02	0.21++	0.30++	0.49++
		3396	650	572	616
DAYS TO FLOWER	0.06	0.11+	0.17++	0.20++	0.08
		352	528	528	484
DAYS TO MATURITY	0.25++	0.19++	0.29++	0.36++	0.18++
		396	660	572	616
MODULE NUMBER 1	0.15++	0.23++	0.03	0.31++	-0.03
		352	440	440	440
MODULE NUMBER 2	0.17++	0.40++	-0.21++	0.36++	0.05
		352	434	484	484
MODULE WEIGHT 1	0.12+	0.05	0.33++	0.19++	-0.07
		352	352	352	396
MODULE WEIGHT 2	0.08	0.25++	-0.04	0.32++	-0.03
		352	440	440	484
PLANT HEIGHT	0.21++	0.02	0.42++	0.20++	-0.12++
		396	650	572	572
LOGGING	-0.04	0.28++	0.15++	0.30++	0.25++
		396	440	440	440
SHATTER	1.00	-0.06	0.14++	0.12+	0.07
		396	396	396	396
PLANTS HARVEST	-0.06	1.00	-0.47++	0.30++	0.24++
		396	660	572	616
PODS PER PLANT	0.14++	-0.47++	1.00	-0.04	-0.17++
		396	572	572	528
100 SEED WEIGHT	0.12+	0.30++	-0.04	1.00	0.06
		396	616	528	616
QUALITY OF SEED	0.07	0.24++	-0.17++	0.06	1.00
		396	572	484	572

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYSTO FLOWER	DAYSTO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
WILLIAMS	3324.01	39.31	118.00	112.38	253.75	0.67	1.85	91.08	1.53
AMSOY 71	3130.51	36.41	114.81	81.63	187.75	0.21	1.44	88.83	2.38
WOODWORTH	3084.52	40.25	110.83	83.75	180.13	0.49	1.28	85.18	1.56
BEESON	3081.44	36.41	114.66	79.25	138.50	0.34	1.47	87.44	2.13
CALLAND	3025.13	38.03	121.97	89.00	167.00	0.43	1.66	98.56	2.84
WELLS	3007.30	35.88	112.47	69.63	156.38	0.34	1.64	80.04	1.34
CUTLER 71	3002.66	42.97	124.94	159.63	286.25	1.45	1.98	99.80	2.19
HODGSON	2944.33	34.00	101.84	100.50	175.13	0.32	1.69	70.40	1.22
CORSOY	2928.50	35.66	109.81	110.25	222.50	0.33	2.41	76.03	1.84
CLARK 63	2868.03	40.34	122.41	112.25	210.13	0.45	1.44	94.17	2.34
HARK	2799.04	34.53	111.41	72.38	169.88	0.25	1.57	81.58	1.81
STEELE	2756.76	35.25	101.34	96.00	195.00	0.53	1.61	71.87	1.50
GRAND MEAN	2996.02	37.42	113.71	97.22	195.20	0.48	1.67	85.42	1.89
NUMBER EXPERIMENTS CONTRIBUTING	8	8	3	2	2	2	2	8	8
STANDARD ERROR OF VARIETY MEAN	132.31	0.86	1.84	16.93	36.98	0.26	0.39	2.28	0.22
COEFFICIENT OF VARIATION	24.92%	13.07%	9.13%	4.925%	53.58%	151.86%	65.38%	15.11%	64.41%
5% LSD VARIETY MEANS (**NS=NS)	*****	2.44	5.17	*****	*****	*****	*****	6.42	0.61
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD	KG/HA	1.00	-0.37++	-0.03	0.44++	0.51++	-0.19	0.19	0.63++
DAYSTO FLOWER		384	384	96	96	96	96	96	384
DAYSTO MATURITY		-0.37++	1.00	0.57++	-0.30++	-0.39++	0.41++	-0.03	-0.23++
MODULE NUMBER 1		0.44++	-0.30++	1.00	-0.06	-0.15	0.37++	0.02	0.36++
MODULE NUMBER 2		0.51++	-0.39++	-0.15	0.51++	1.00	0.20+	0.26+	0.43++
MODULE WEIGHT 1		0.19	0.41++	0.37++	0.20+	0.11	0.00	0.27++	-0.13
MODULE WEIGHT 2		0.96	0.6	0.95	0.96	0.96	0.96	0.96	0.44++
PLANT HEIGHT		0.63++	-0.23++	0.36++	0.43++	0.46++	-0.13	0.01	1.00
LOGGING		0.49++	-0.22++	0.14++	0.39++	0.44++	-0.19	0.12	0.57++
SHATTER		-0.17++	0.09	0.21++	0.12	-0.02	-0.02	-0.11	0.10+
PLANTS HARVEST		0.42++	-0.25++	0.27++	-0.06	-0.08	-0.20	-0.07	0.63++
PODS PER PLANT		0.26++	-0.03	0.26	0.65++	0.27++	1.00	0.01	0.12
100 SEED WEIGHT		0.40++	-0.24++	0.27++	0.48	0.43++	-0.22+	0.04	0.64++
QUALITY OF SEED		-0.12+	0.07	0.23++	-0.19	-0.12	-0.27++	-0.09	-0.02

TABLE 46 COMBINED ANALYSIS OF SITES IN ZONE X FOR ISVEX-4

VARIETY OR CROSS	SHATTER PER PLANT	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
WILLIAMS	1.13	136.14	38.12	19.27	1.78
AMSOY 71	1.03	175.89	38.53	18.40	2.72
WOODWORTH	1.13	184.95	37.00	16.69	1.97
BEESON	1.06	178.50	36.38	18.90	2.84
CALLAND	1.03	179.14	39.54	18.03	2.81
WELLS	1.20	193.86	38.23	16.18	2.88
CUTLER 71	1.16	175.93	38.39	18.55	2.38
HODGSON	1.00	133.54	37.93	17.21	1.97
CORSOY	1.06	178.46	45.09	16.55	2.53
CLARK 63	1.13	131.29	36.58	16.38	2.34
HARK	1.03	157.50	39.97	17.34	2.47
STEELE	1.00	190.50	34.32	17.94	2.09
GRAND MEAN	1.06	130.39	38.34	17.62	2.40
NUMBER EXPERIMENTS CONTRIBUTING	8	7	5	7	8
STANDARD ERROR OF VARIETY MEAN	0.05	5.65	2.43	0.40	0.18
COEFFICIENT OF VARIATION	28.5%	16.52%	28.40%	12.09%	42.55%
5% LSD VARIETY MEANS (**NS)	*****	15.94	*****	1.14	0.51
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.35, + + - PROB=.01)					
YIELD	KG/HA	-0.17++	0.42++	0.26++	0.40++
DAYS TO FLOWER		384	336	240	336
85		0.09	-0.26++	-0.03	-0.24++
DAYS TO MATURITY		384	336	240	336
NODULE NUMBER 1		0.12	-0.05	-0.33++	0.27++
NODULE NUMBER 2		95	48	43	96
NODULE NUMBER 2		-0.02	-0.08	-0.06	0.43++
NODULE WEIGHT 1		96	48	48	96
NODULE WEIGHT 2		-0.02	-0.20	0.09	-0.22+
PLANT HEIGHT		384	336	240	336
LOGGING		0.05	0.33++	0.05	0.04
SHATTER		1.00	0.27++	-0.33++	0.13+
PLANTS HARVEST		384	336	240	336
PODS PER PLANT		-0.33++	-0.58++	1.00	-0.43++
100 SEED WEIGHT		0.13+	0.53++	-0.43++	1.00
QUALITY OF SEED		336	240	240	240
		0.12+	0.13+	0.13+	0.12+
		336	240	336	336
		0.64++	0.64++	0.64++	0.64++
		336	240	336	336
		0.16++	0.16++	0.16++	0.16++
		384	336	384	384
		0.01	0.01	0.01	0.01
		336	288	336	336
		0.08	0.08	0.08	0.08
		240	240	240	240
		0.05	0.05	0.05	0.05
		336	336	336	336
		1.00	1.00	1.00	1.00
		0.05	0.05	0.05	0.05
		336	336	336	336

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
DAVIS	2337.08	29.81	97.53	92.02	177.73	0.45	1.89	32.05	1.09
FORREST	2288.16	28.60	88.56	86.15	144.77	0.35	1.43	33.71	1.09
IMPROVED PELICAN	2175.29	33.79	97.73	89.77	191.06	0.37	1.61	70.59	1.66
WILLIAMS	2173.91	26.67	86.85	99.62	153.44	0.34	1.15	41.40	1.05
BRAGG	2138.06	29.75	93.67	83.04	172.79	0.30	1.56	37.86	1.25
BOSSIER	2089.49	30.46	92.94	99.81	195.21	0.45	2.28	34.06	1.09
CLARK 63	2032.65	28.58	84.79	76.96	140.56	0.43	1.46	44.50	1.18
HILL	1988.16	30.29	90.03	85.52	139.33	0.33	1.31	35.47	1.18
JUPITER	1920.29	37.35	114.67	109.21	215.65	0.43	1.71	64.29	1.70
GRAND MEAN	2127.01	30.59	94.10	91.34	170.06	0.38	1.60	43.77	1.26
NUMBER EXPERIMENTS CONTRIBUTING	12	12	12	12	12	10	10	12	11
STANDARD ERROR OF VARIETY MEAN	121.37	0.87	1.73	7.38	15.03	0.06	0.25	2.29	0.15
COEFFICIENT OF VARIATION	39.53%	19.63%	13.09%	56.00%	61.25%	94.44%	99.03%	36.26%	79.83%
5% LSD VARIETY MEANS (**NS) ****=NS	2.44	5.00	*****	*****	42.25	*****	*****	6.44	0.43
(+- PROB=.05, ++ - PROB=.01)									
CORRELATIONS AND NUMBER OF OBSERVATIONS									
YIELD KG/HA	1.00	0.00	0.44++	-0.09	0.16++	0.07	0.12+	0.50++	0.08
DAYS TO FLOWER	43.2	43.2	43.2	43.2	43.2	36.0	36.0	43.2	39.6
DAYS TO MATURITY	0.44++	0.46++	0.46++	0.06	0.15++	0.16++	0.14+	0.43++	0.38++
NODULE NUMBER 1	0.432	0.432	0.432	0.432	0.432	36.0	36.0	43.2	39.6
NODULE NUMBER 2	0.16++	0.15++	0.15++	0.08	0.12++	0.24++	0.24++	0.51++	0.34++
NODULE WEIGHT 1	0.09	0.06	0.08	1.00	0.67++	0.05	-0.11+	0.02	-0.09
NODULE WEIGHT 2	0.432	0.432	0.432	0.432	0.432	36.0	36.0	43.2	39.6
PLANT HEIGHT	0.50++	0.432	0.432	0.432	0.432	36.0	36.0	0.22++	-0.03
LODGING	0.07	0.16++	0.24++	0.05	0.07	1.00	0.60++	0.10	0.11+
SHATTER	0.12+	0.14+	0.29++	-0.11+	0.16++	0.60++	1.00	0.12+	0.12+
PLANTS HARVEST	0.30++	0.432	0.432	0.432	0.432	36.0	36.0	36.0	324
PODS PER PLANT	0.47++	0.24++	0.40++	-0.20++	-0.02	0.01	0.03	0.06	0.11+
100 SEED WEIGHT	0.68++	-0.09	0.40++	0.16++	0.33++	-0.04	-0.00	0.27++	-0.01
QUALITY OF SEED	-0.18++	0.23++	0.03	0.07	-0.09	-0.13+	-0.27++	-0.00	0.23++
	396	396	396	396	396	324	396	324	360

TABLE 47 COMBINED ANALYSIS OF ASIAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.10	235.67	19.10	17.77	1.66
FORREST	1.00	231.67	20.46	14.15	2.14
IMPROVED PELICAN	1.05	234.54	29.93	13.72	1.36
WILLIAMS	1.03	231.77	16.89	17.78	1.48
BRAGG	1.03	226.00	16.90	16.97	1.59
BOSSIER	1.20	215.10	20.35	18.11	1.75
CLARK 63	1.05	245.94	19.93	16.34	1.45
HILL	1.00	226.58	22.13	15.07	1.57
JUPITER	1.10	222.58	24.09	16.99	2.34
GRAND MEAN	1.04	230.21	21.09	16.10	1.70
NUMBER EXPERIMENTS CONTRIBUTING	10	1.12	1.12	1.12	1.11
STANDARD ERROR OF VARIETY MEAN	0.05	6.85	1.44	0.37	0.19
COEFFICIENT OF VARIATION	28.03%	20.61%	47.40%	15.76%	72.63%
5% LSD VARIETY MEANS (**NS=NS)	*****	*****	4.06	1.03	0.53
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD KG/HA	-0.01	0.30++	0.47++	0.68++	-0.18++
DAYS TO FLOWER	-0.06	4.32	4.32	4.32	3.96
DAYS TO MATURITY	0.20++	-0.10+	0.24++	-0.09	0.23++
MODULE NUMBER 1	0.350	0.19++	0.40++	0.40++	0.396
MODULE NUMBER 2	-0.03	4.32	4.32	4.32	3.96
MODULE NUMBER 3	0.360	0.09	-0.20++	0.16++	0.07
MODULE NUMBER 4	-0.02	-0.06	-0.02	0.33++	-0.09
MODULE WEIGHT 1	0.01	0.21++	0.01	-0.04	-0.13+
MODULE WEIGHT 2	0.03	0.26++	0.07	-0.00	-0.27++
PLANT HEIGHT	0.06	0.21++	0.53++	0.27++	-0.00
LODGING	0.11+	0.05	0.20++	-0.01	0.23++
SHATTER	1.00	0.17++	0.03	0.01	0.19++
PLANTS HARVEST	0.17++	1.00	0.05	0.08	-0.01
PODS PER PLANT	0.03	0.05	1.00	0.20++	0.03
100 SEED WEIGHT	0.91	0.08	0.20++	1.00	-0.20++
QUALITY OF SEED	0.19++	-0.01	0.03	-0.20++	1.00
	324	396	396	396	396

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1		NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
				MODULE NUMBER	WEIGHT					
DAVIS	2485.66	31.92	96.96	179.50	388.80	0.60	3.91	49.26	1.71	
BRAGG	2411.13	27.33	96.04	148.44	458.60	0.44	3.50	48.36	1.58	
RANSOM	2320.48	27.04	99.54	143.69	402.00	0.42	3.11	43.95	1.21	
CALLAND	2314.15	24.08	91.33	72.56	274.95	0.22	2.82	71.09	2.04	
PICKETT 71	2278.38	27.33	96.92	80.50	245.15	0.26	2.60	36.93	1.08	
FORREST	2269.18	29.42	95.17	139.81	367.50	0.31	2.93	47.89	1.38	
COBB	2204.69	28.58	102.33	149.31	369.90	0.44	3.68	49.27	1.38	
WILLIAMS	2161.52	23.88	88.53	130.69	333.90	0.32	2.92	61.30	1.63	
BOSSIER	2140.25	25.92	99.17	122.81	387.50	0.50	3.84	39.83	1.29	
CUTLER 71	2033.47	23.88	91.42	109.94	313.60	0.22	2.73	67.55	2.21	
CLARK 63	2006.35	24.13	89.96	99.06	275.35	0.19	2.72	65.50	2.29	
HILL	1882.02	31.75	89.88	119.75	253.05	0.29	2.11	44.15	1.83	
WOODWORTH	1861.01	23.67	85.00	105.69	255.25	0.22	2.42	58.05	1.88	
IMPROVED PELICAN	1526.76	37.25	109.33	204.13	347.20	0.82	2.88	97.12	2.71	
GRAND MEAN	2135.40	27.58	95.12	128.99	333.77	0.38	3.01	55.73	1.73	
NUMBER EXPERIMENTS CONTRIBUTING	6	6	6	4	5	4	4	6	6	
STANDARD ERROR OF VARIETY MEAN	232.79	0.89	3.29	21.02	35.44	0.11	0.35	3.83	0.27	
COEFFICIENT OF VARIATION	53.41%	15.73%	16.93%	65.18%	47.49%	119.55%	45.94%	33.69%	76.77%	
5% LSD VARIETY MEANS (**=NS)	*****	**	2.50	9.29	60.12	100.59	0.32	0.99	10.83	0.77
CORRELATIONS AND NUMBER OF OBSERVATIONS										
(+ - PROB.=.05, + + - PROB.=.01)										
YIELD	KG/HA	1.00	0.26++	0.28++	0.34++	0.09	0.12	0.13	0.12+	-0.14++
88		336	336	336	224	230	224	224	336	336
DAYS TO FLOWER		0.26++	1.00	0.57++	0.47++	0.10	0.52++	0.33++	0.15++	0.01
DAYS TO MATURITY		336	336	336	224	280	224	224	336	336
MODULE NUMBER 1		0.34++	0.47++	0.33++	1.00	0.33++	0.34++	0.72++	-0.32++	-0.32++
MODULE NUMBER 2		0.09	0.10	0.50++	0.42++	1.00	0.25++	0.64++	0.04	-0.27++
MODULE WEIGHT 1		0.12	0.52++	0.34++	0.67++	0.25++	1.30	0.39++	0.04	-0.01
MODULE WEIGHT 2		0.13	0.33++	0.72++	0.37++	0.54++	0.39++	1.00	-0.20++	-0.44++
PLANT HEIGHT		0.12+	0.15++	-0.01	0.17+	0.04	0.04	-0.20++	1.00	0.46++
PLANTS HARVEST		0.11+	-0.06	-0.41++	-0.09	-0.54++	0.02	-0.22++	-0.13+	0.29++
PODS PER PLANT		0.29++	0.06	0.10	0.27++	0.49++	-0.01	-0.44++	0.46++	1.00
100 SEED WEIGHT		0.15++	0.20++	0.13+	0.05	0.10	0.00	0.01	0.04	0.04
QUALITY OF SEED		0.72++	0.25++	0.57++	0.40++	0.01	0.29++	0.58++	-0.00	-0.24++
		230	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	168	336	336
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280	168	224	280	224	168	280	280
		-0.32++	-0.04	0.24++	-0.04	-0.27++	-0.01	-0.44++	0.46++	224
		336	336	336	224	280	224	224	336	336
		280	280							

TABLE 48 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.00	227.50	23.82	15.67	3.63
BRAGG	1.00	219.96	24.71	15.90	3.33
RANSOM	1.00	226.71	22.41	16.87	4.00
CALLAND	1.00	219.75	24.73	18.23	3.54
PICKETT 71	1.00	206.88	20.76	15.35	3.21
FORREST	1.00	219.46	26.89	13.86	3.71
COBB	1.33	196.17	28.57	15.06	3.38
WILLIAMS	1.00	223.25	19.42	18.28	2.96
BOSSIER	1.00	195.29	24.33	15.39	3.29
CUTLER 71	1.00	214.54	21.29	19.15	3.17
CLARK 63	1.00	206.54	20.18	16.74	2.92
HILL	1.00	212.96	25.78	15.31	3.25
WOODWORTH	1.00	215.71	22.40	16.12	3.21
IMPROVED PELICAN	1.04	168.96	36.44	13.24	3.00
GRAND MEAN	1.03	210.98	24.41	16.08	3.33
NUMBER EXPERIMENTS CONTRIBUTING	6	6	5	5	6
STANDARD ERROR OF VARIETY MEAN	0.09	8.16	2.47	0.77	0.33
COEFFICIENT OF VARIATION	42.43%	18.94%	45.33%	21.49%	48.64%
5% LSD VARIETY MEANS (**NS=NS)	*****	23.04	7.02	2.19	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ = PROB=.05, ++ = PROB=.01)					
YIELD	KG/HA	0.07	0.11+	0.29++	0.72++
89		336	336	280	280
DAYS TO FLOWER		0.15++	-0.06	0.06	0.25++
DAYS TO MATURITY		0.20++	-0.41++	0.10	0.57++
NODULE NUMBER 1		0.13+	-0.09	0.27++	0.24++
NODULE NUMBER 2		0.05	-0.54++	0.49++	0.36++
NODULE WEIGHT 1		0.10	0.02	-0.20++	0.29++
NODULE WEIGHT 2		0.00	-0.22++	-0.06	0.58++
PLANT HEIGHT		0.01	-0.13+	0.37++	-0.02
LODGING		0.04	0.29++	-0.16++	-0.24++
SHATTER		1.00	0.00	-0.00	-0.01
PLANTS HARVEST		336	336	280	280
PODS PER PLANT		-0.00	-0.67++	1.00	-0.07
100 SEED WEIGHT		-0.01	0.22++	-0.07	1.00
QUALITY OF SEED		0.01	-0.28++	-0.09	-0.36++
		336	336	280	280

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEXX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE		MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
				NUMBER EXPERIMENTS CONTRIBUTING	STANDARD ERROR OF VARIETY MEAN						
WILLIAMS	1963.50	30.75	92.21	59.15	97.30	0.28	1.08	37.04	1.15	1.55	
DAVIS	1936.93	38.13	103.00	64.10	115.50	0.26	1.47	42.87	1.55	1.25	
COLUMBUS	1919.26	31.50	95.33	70.65	130.75	0.35	1.41	42.24	1.50	1.50	
FORREST	1913.86	35.79	101.25	50.75	97.90	0.20	1.24	45.26	1.30	1.30	
CLARK 63	1880.34	30.79	95.96	46.25	75.85	0.16	0.84	40.04	1.30	1.30	
CALLAND	1855.39	30.46	97.50	49.20	96.15	0.25	0.97	41.37	1.30	1.30	
RANSOM	1841.51	34.04	103.13	74.60	152.15	0.43	1.32	36.40	1.15	1.15	
BOSSIER	1789.30	33.83	101.96	59.35	108.70	0.33	1.39	33.14	1.05	1.05	
HILL	1771.54	37.88	95.75	54.80	73.30	0.23	0.87	39.48	1.75	1.75	
WOODWORTH	1755.43	31.00	88.42	47.70	72.65	0.23	0.81	37.99	1.20	1.20	
PICKETT 71	1730.50	34.58	100.83	45.45	79.90	0.19	0.88	30.85	1.00	1.00	
BRAGG	1549.51	34.21	101.75	58.35	128.95	0.30	1.30	37.22	1.05	1.05	
GRAND MEAN	1825.71	33.58	98.13	56.70	102.43	0.27	1.13	38.66	1.27	1.27	
STANDARD ERROR OF VARIETY MEAN	120.36	6	6	5	5	4	5	6	5	5	
COEFFICIENT OF VARIATION	32.22%	22.15%	3.50	8.53	16.04	0.06	0.17	2.42	0.22	0.22	
5% LSD VARIETY MEANS (* * * * = NS)	*****	4.30	17.43%	67.30%	70.03%	83.06%	68.88%	30.65%	75.85%	75.85%	
***** - PROB=.05, + + - PROB=.01)											
CORRELATIONS AND NUMBER OF OBSERVATIONS											
YIELD	KG/H	1.00	-0.20++	0.22++	-0.31++	-0.09	-0.59++	0.23++	0.69++	0.27++	
DAYS TO FLOWER		238	239	283	240	192	240	240	288	240	
DAYS TO MATURITY		-0.20++	1.00	0.43++	0.40++	0.10	0.39++	0.20++	0.49++	0.49++	
MODULE NUMBER 1		0.22++	0.43++	233	283	240	192	240	288	240	
MODULE NUMBER 2		0.21++	0.43++	1.00	0.09	0.33++	-0.09	0.37++	0.35++	0.24++	
MODULE WEIGHT 1		0.31++	0.40++	238	288	240	192	240	288	240	
MODULE WEIGHT 2		0.240	0.240	0.09	0.09	0.66++	0.59++	0.81++	-0.02	0.02	
PLANT HEIGHT		-0.29	0.19	0.19	0.33++	0.66++	1.00	0.59++	0.81++	0.22++	
LOGGING		0.59++	0.39++	0.39++	-0.09	0.89++	0.59++	1.00	0.37++	-0.64++	
SHATTER		0.27++	0.192	0.192	0.192	0.14+	0.02	-0.22++	-0.64++	0.14+	
PLANTS HARVEST		0.23++	0.20++	0.37++	0.57++	0.81++	0.37++	1.00	0.21++	0.16+	
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100 SEED WEIGHT		0.52++	-0.09	0.31++	-0.25++	-0.02	-0.64++	0.21++	1.00	0.50++	
QUALITY OF SEED		-0.38++	0.58++	0.32++	0.35++	0.49++	0.49++	0.37++	0.20++	0.38++	

TABLE 49 COMBINED ANALYSIS OF ASIA AND OCEANIA SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
WILLIAMS	1.20	227.00	14.46	16.28	2.40
DAVIS	1.20	232.38	17.13	15.07	3.00
COLUMBUS	1.00	211.33	15.43	15.62	2.50
FORREST	1.00	218.67	21.24	13.78	2.85
CLARK 63	1.00	226.21	14.96	15.21	2.45
CALLAND	1.00	222.53	13.73	12.58	2.75
RANSOM	1.00	233.21	17.06	15.31	2.40
BOSSIER	1.00	194.46	20.53	13.77	2.50
HILL	1.20	222.46	19.97	13.60	2.90
WOODWORTH	1.00	232.21	13.43	14.56	2.35
PICKETT 71	1.00	208.96	18.72	13.93	2.65
BRAGG	1.00	231.13	18.80	15.06	2.90
GRAND MEAN	1.00	221.59	17.12	14.90	2.64
NUMBER EXPERIMENTS CONTRIBUTING	4	6	6	5	.5
STANDARD ERROR OF VARIETY MEAN	0.00	11.33	1.93	0.56	0.26
COEFFICIENT OF VARIATION	0.00%	25.14%	55.14%	16.84%	43.77%
5% LSD VARIETY MEANS (**NS=NS)	0.00	*****	5.46	1.60	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ = PROB=.05, ++ = PROB=.01)					
YIELD KG/HA	0.20	0.13+	0.43++	0.62++	-0.38++
DAYS TO FLOWER	0.92	288	283	240	240
DAYS TO Maturity	0.92	0.32++	-0.07	-0.09	0.68++
NODULE NUMBER 1	0.00	0.35++	0.52++	0.31++	0.57++
NODULE NUMBER 2	0.92	238	283	240	240
NODULE NUMBER 2	0.00	0.49++	-0.41++	-0.01	0.25++
PLANT HEIGHT	0.92	240	240	240	240
NODULE WEIGHT 1	0.00	0.37++	-0.50++	-0.32++	0.15+
NODULE WEIGHT 2	0.92	192	192	192	192
LODGING	0.00	0.33++	0.02	0.38++	0.05
SHATTER	1.00	0.49++	-0.13	0.29++	0.13
PLANTS HARVEST	1.00	0.20++	0.53++	0.59++	0.02
PODS PER PLANT	0.92	288	283	240	240
100 SEED WEIGHT	0.20	0.33++	0.11	0.29++	0.41++
QUALITY OF SEED	0.00	0.30++	-0.01	0.01	1.00
	1.92	240	240	240	240

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAY S TO FLOWER	MATURITY	NOODLE NUMBER 1	NOODLE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
DAVIS	2725.65	29.58	101.20	88.73	185.38	0.49	2.17	33.73	1.11
FORREST	2610.43	28.03	91.18	87.23	149.80	0.40	1.59	35.08	1.00
WILLIAMS	2537.18	26.00	88.75	92.20	164.03	0.36	1.31	45.58	1.06
BRAGG	2477.41	29.40	97.30	82.12	186.63	0.33	1.81	40.62	1.31
BOSSIER	2418.17	30.75	96.43	96.37	209.25	0.50	2.77	36.53	1.11
IMPROVED PELICAN	2415.31	33.45	99.58	91.23	198.98	0.39	1.79	75.21	1.58
CLARK 63	2351.20	28.50	86.65	78.45	154.10	0.50	1.72	47.90	1.11
HILL	2287.52	29.75	91.75	83.25	144.38	0.37	1.50	37.49	1.11
JUPITER	2171.20	37.63	116.73	108.23	215.78	0.47	1.92	68.91	1.83
NUMBER EXPERIMENTS	GRAND MEAN	2443.79	30.34	96.61	90.31	178.70	0.42	1.83	46.78
STANDARD ERROR OF VARIETY MEAN	139.58	1.00	1.10	1.0	10	8	8	10	9
COEFFICIENT OF VARIATION	36.12%	20.90%	1.99	8.40	17.20	0.07	0.31	2.57	0.17
5% LSD VARIETY MEANS (**NS)	36.***	2.33	13.01%	58.85%	60.88%	94.44%	95.26%	34.74%	79.94%
		5.63	*****	48.50	*****	7.25	*****	7.25	0.47
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ = PROB=.05, ++ = PROB=.01)									
YIELD	KG/HA	1.00	0.08	0.31++	-0.08	0.09	-0.05	0.39++	0.13+
DAY S TO FLOWER		360	360	360	360	360	288	360	324
DAY S TO MATURITY		0.31++	1.00	0.50++	0.02	0.17++	0.14++	0.50++	0.36++
NODULE NUMBER 1		0.50++	0.50++	1.00	360	360	288	360	324
NODULE NUMBER 2		0.31++	0.17++	0.03	-0.12+	0.03	0.16++	0.23++	0.41++
NODULE WEIGHT 1		0.350	0.360	0.360	0.360	0.360	288	360	324
NODULE WEIGHT 2		0.03	0.02	-0.12+	1.00	0.71++	0.03	-0.10	0.03
PLANT HEIGHT		0.288	0.288	0.288	0.288	0.288	288	360	324
LOGGING		0.13+	0.13++	0.23++	-0.10	0.11	0.59++	1.00	0.02
SHATTER		-0.05	-0.07	0.20++	-0.04	-0.03	-0.01	0.01	0.10
PLANTS HARVEST		-0.08	-0.15++	0.11+	-0.14++	-0.20++	0.09	0.14+	-0.02
PODS PER PLANT		0.360	0.324	0.324	0.324	0.324	252	324	324
100 SEED WEIGHT		0.58++	0.01	0.33++	0.22++	0.31++	0.16++	0.15++	0.05
QUALITY OF SEED		0.04	0.13+	0.19++	0.03	0.12+	-0.05	0.22++	0.11+
		360	360	360	360	360	288	360	324

TABLE 50 COMBINED ANALYSIS OF SRI LANKAN SITES IN ZONE I FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
DAVIS	1.11	254.75	20.60	18.83	1.55
FORREST	1.00	248.90	21.17	14.51	2.00
WILLIAMS	1.03	251.28	18.51	18.63	1.35
BRAGG	1.03	245.55	17.99	17.69	1.50
BOSSIER	1.00	230.98	21.85	16.78	1.60
IMPROVED PELICAN	1.06	253.30	30.25	14.32	1.25
CLARK 63	1.06	267.63	21.81	17.06	1.33
HILL	1.00	246.35	23.63	15.65	1.43
JUPITER	1.11	244.93	24.72	17.79	2.25
GRAND MEAN	1.04	249.29	22.29	16.81	1.58
NUMBER EXPERIMENTS CONTRIBUTING	9	10	10	10	10
STANDARD ERROR OF VARIETY MEAN	0.05	7.71	1.63	0.38	0.20
COEFFICIENT OF VARIATION	29.47%	19.55%	47.53%	14.33%	81.87%
5% LSD VARIETY MEANS (**NS)	*****	*****	4.72	1.07	0.58
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD	KG/HA	-0.05	-0.08	0.40++	0.58++
DAY TO FLOWER		324	360	360	360
DAY TO MATURITY		-0.07	-0.15++	0.27++	0.01
DAY TO MATURITY		324	360	360	360
NODULE NUMBER 1		0.20++	-0.11+	0.33++	0.19++
NODULE NUMBER 1		324	360	360	360
NODULE NUMBER 2		-0.03	-0.20++	-0.09	0.31++
NODULE NUMBER 2		324	360	360	360
NODULE WEIGHT 1		-0.01	0.09	-0.04	-0.15+
NODULE WEIGHT 1		252	288	288	288
NODULE WEIGHT 2		0.01	0.14+	0.01	-0.16++
PLANT HEIGHT		252	288	288	288
PLANT HEIGHT		0.04	-0.02	0.47++	0.15++
lodging		324	360	360	360
lodging		0.10	0.02	0.21++	0.05
PLANTS HARVEST		0.17++	1.00	-0.14++	-0.29++
PLANTS HARVEST		324	360	360	360
PODS PER PLANT		0.01	-0.14++	1.00	0.11+
100 SEED WEIGHT		324	360	360	360
QUALITY OF SEED		0.19++	0.18++	-0.01	1.00
QUALITY OF SEED		324	360	360	360

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISWEX-4

VARIETY OR CROSS	YIELD KG/HA	DAY TO FLOWER	DAY TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
RANSOM	2526.34	43.38	107.33	8.50	8.25	0.00	0.00	53.73	0.00
BRAGG	2379.75	44.25	105.88	13.00	10.88	0.20	0.00	60.24	0.00
BOSSIER	2343.39	44.13	106.00	5.25	6.50	0.00	0.00	57.04	0.00
DAVIS	2122.92	43.63	101.03	8.75	13.75	0.00	0.37	44.16	0.00
PICKETT 71	2113.13	42.50	105.50	9.00	8.63	0.30	0.00	43.55	0.00
HAMPTON 266A	1978.83	47.13	108.31	10.25	9.63	0.00	0.00	50.44	0.00
FORREST	1827.03	42.00	94.19	5.75	15.63	0.00	0.91	41.48	0.00
ESSEX	1772.35	39.00	92.33	7.50	20.00	0.00	0.89	36.61	0.00
WILLIAMS	1719.41	35.25	85.69	12.50	24.00	0.00	1.29	54.63	0.00
CALLAND	1689.09	38.25	90.06	8.75	18.25	0.00	1.18	60.32	0.00
CLARK 63	1578.44	35.50	88.06	9.00	22.38	0.00	1.12	51.68	0.00
WOODWORTH	1392.78	35.50	83.69	11.25	17.38	0.20	0.94	52.08	0.00
CUTLER 71	1385.28	35.75	87.31	13.50	23.50	0.00	0.84	46.44	0.00
HILL	1268.30	42.38	87.06	14.50	19.13	0.00	0.57	35.45	0.00
GRAND MEAN	1864.15	40.62	95.89	9.82	15.56	0.20	0.58	49.13	0.00
NUMBER EXPERIMENTS	4	2	4	1	2	0	1	4	0
STANDARD ERROR OF VARIETY MEAN	141.35	1.64	1.87	3.06	5.54	0.00	0.28	3.36	0.00
COEFFICIENT OF VARIATION	30.33%	11.44%	7.79%	6.238%	100.70%	0.00%	96.52%	27.33%	0.00%
5% LSD VARIETY MEANS (**=NS)	404.34	5.02	5.34	*****	*****	0.00	0.80	9.60	0.00
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
YIELD KG/HA	1.00	-0.16	0.57+	0.01	-0.37++	0.20	-0.38++	0.21++	0.00
DAY TO FLOWER	-0.16	1.12	224	56	1.12	0	56	224	0
DAY TO MATURITY	0.57++	1.00	0.20+	-0.07	-0.03	0.00	-0.62++	0.39++	0.00
MODULE NUMBER 1	0.20+	1.12	112	56	1.12	0	56	112	0
MODULE NUMBER 2	0.01	-0.07	224	56	0.11	-0.55++	0.00	-0.66++	0.20++
MODULE WEIGHT 1	0.00	-0.11	1.12	224	56	1.12	0	56	224
MODULE WEIGHT 2	-0.37++	-0.03	-0.55++	0.97++	1.00	0.00	0.91++	0.19+	0.00
LODGING	0.00	0.00	0.00	0.00	0.19+	1.12	0	56	112
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	1.00
PLANTS HARVEST	0.21++	0.39++	0.20++	0.19	0.19+	0.00	0.18	56	56
PODS PER PLANT	0.60++	-0.38++	-0.62++	0.66++	0.91++	0.00	1.00	0.18	0.00
100 SEED WEIGHT	0.07	5.6	56	56	56	0	56	56	0
QUALITY OF SEED	-0.15+	-0.32+	-0.11	0.00	0.12	0.00	-0.06	0.07	0.00
	168	56	168	56	56	0	0.26	0.11	0.00

TABLE 51 COMBINED ANALYSIS OF PAKISTAN SITES IN ZONE VII FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
RANSOM	0.30	159.50	43.63	16.76	2.00
BRAGG	0.00	157.63	49.83	13.90	2.08
BOSSIER	0.00	133.75	68.50	14.32	2.00
DAVIS	0.00	146.81	47.38	14.62	2.08
PICKETT 71	0.00	140.94	46.63	13.44	2.00
HAMPTON 266A	0.00	192.63	77.00	16.27	2.08
FORREST	0.00	112.56	40.88	12.22	2.08
ESSEX	0.00	133.94	37.25	14.21	2.00
WILLIAMS	0.00	154.69	39.13	14.46	2.00
CALLAND	0.00	143.69	42.25	15.88	2.42
CLARK 63	0.00	126.06	41.38	14.99	2.00
WOODWORTH	0.00	143.31	40.75	15.46	2.17
CUTLER 71	0.00	121.88	34.63	17.98	2.08
HILL	0.00	139.50	39.88	12.93	2.00
GRAND MEAN	0.00	136.21	46.37	14.82	2.07
NUMBER EXPERIMENTS CONTRIBUTING	0	4	2	4	3
STANDARD ERROR OF VARIETY MEAN	0.00	13.80	6.87	0.83	0.07
COEFFICIENT OF VARIATION	0.00%	40.52%	41.91%	22.28%	11.74%
5% LSD VARIETY MEANS (**NS)	0.30	*****	20.99	2.36	0.20
CORRELATIONS AND NUMBER OF OBSERVATIONS					
YIELD KG/HA	0.00	0.22++	0.60++	-0.07	-0.15+
DATA TO FLOWER	0	224	112	224	168
DATA TO MATURITY	0.00	0.46++	-0.33++	0.05	-0.32+
NODULE NUMBER 1	0.00	-0.12	0.54++	0.00	-0.11
NODULE NUMBER 2	0.00	0.20+	0.39++	-0.03	0.12
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.17	0.34++	-0.06	0.26
PLANT HEIGHT	0.00	0.35++	-0.20+	0.07	0.11
LOGGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.27++	-0.04	-0.09
PODS PER PLANT	0.00	-0.27++	1.00	0.07	-0.10
100 SEED WEIGHT	0.00	-0.04	0.07	1.00	0.13
QUALITY OF SEED	0.00	-0.09	-0.10	0.13	1.00
	0	168	56	168	168

(+ = PROB=.05, ++ = PROB=.01)

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
HILL	2125.11	58.57	147.00	114.75	144.17	4.98	0.92	43.25	1.00
DAVIS	1932.99	78.00	152.58	102.67	121.83	5.30	1.00	44.75	1.00
ESSEX	1857.04	59.33	144.33	197.08	190.67	4.20	2.38	42.00	0.75
FORREST	1828.91	63.25	152.17	119.75	163.50	5.67	1.15	42.75	1.25
COLUMBUS	1740.56	45.17	145.67	228.58	212.17	4.65	1.73	46.13	1.13
BOSSIER	1728.47	60.50	143.33	174.92	162.42	5.93	1.68	36.69	1.00
COBB	1724.72	72.75	151.50	108.92	134.67	5.10	1.05	43.94	0.75
PICKETT 71	1657.83	51.58	140.33	96.00	110.00	3.90	0.97	33.25	1.38
IMPROVED PELICAN	1627.20	93.50	168.03	77.83	114.50	6.37	0.62	82.31	2.50
RANSOM	1507.59	55.42	143.33	208.08	180.25	5.80	1.35	34.69	0.75
WILLIAMS	1502.90	47.33	127.42	193.92	185.83	5.90	1.93	32.75	1.25
CALLAND	1216.28	46.53	142.83	113.50	126.83	4.15	1.35	33.75	0.88
WOODWORTH	1149.81	47.25	127.92	154.67	132.17	4.23	1.40	31.31	1.00
CLARK 63	1069.80	44.92	136.67	168.42	135.58	5.12	1.08	34.13	1.38
BRAGG	901.35	53.83	144.03	122.08	138.75	4.27	1.00	35.88	1.25
GRAND MEAN	1571.40	50.57	144.43	145.41	150.22	5.07	1.31	41.17	1.15
NUMBER EXPERIMENTS CONTRIBUTING	4	3	3	3	3	1	1	4	2
STANDARD ERROR OF VARIETY MEAN	175.39	3.27	4.21	17.54	17.51	0.93	0.29	4.33	0.40
COEFFICIENT OF VARIATION	44.65%	18.71%	10.03%	41.78%	40.38%	36.76%	43.96%	42.02%	97.77%
5% LSD VARIETY MEANS (*****=NS)	500.58	9.48	12.13	50.81	50.72	*****	0.82	12.34	*****
CORRELATIONS AND NUMBER OF OBSERVATIONS									
(+ - PROB=.05, ++ - PROB=.01)									
96	YIELD KG/HA	1.00	0.36++	0.28++	-0.01	0.13	-0.02	0.02	0.34++
	DAYS TO FLOWER	240	130	180	180	180	60	60	240
	DAYS TO MATURITY	180	1.00	0.60++	-0.32++	0.07	0.50	0.00	0.69++
	NODULE NUMBER 1	0.28++	0.50++	1.00	0.03	0.48++	0.00	0.00	0.41++
	NODULE NUMBER 2	130	180	180	120	120	0	0	-0.35++
	NODULE WEIGHT 1	-0.01	-0.32++	0.03	1.00	0.65++	-0.09	0.54++	-0.19+
	NODULE WEIGHT 2	180	120	120	180	180	60	60	180
	PLANT HEIGHT	0.13	0.07	0.43++	0.65++	1.00	-0.35	0.77++	-0.02
	PLANTS HARVEST	0.34++	0.59++	0.41++	-0.19+	-0.02	-0.32	0.07	1.00
	LODGING	240	180	180	180	180	60	60	240
	PODS PER PLANT	-0.33++	0.01	-0.35++	0.17	0.00	0.30	0.00	0.31++
	100 SEED WEIGHT	120	120	120	120	120	0	0	120
	QUALITY OF SEED	-0.12	3.12	3.15+	0.23++	-0.01	-0.09	0.00	0.12
		130	130	180	120	120	0	180	120

TABLE 52 COMBINED ANALYSIS OF ETHIOPIAN SITES IN ZONE III FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
HILL	1.25	194.83	24.83	17.32	1.25
DAVIS	1.38	159.57	23.10	29.00	1.33
ESSEX	1.50	186.67	19.53	18.10	1.17
FORREST	1.13	158.75	19.75	16.36	1.42
COLUMBUS	1.50	160.75	23.49	32.51	1.17
BOSSIER	1.00	154.75	20.03	19.36	1.42
COBB	1.50	157.33	27.62	27.78	1.50
PICKETT 71	1.50	159.33	17.89	17.00	1.42
IMPROVED PELICAN	1.75	156.17	42.41	24.64	1.75
RANSOM	1.63	175.58	19.15	35.46	1.58
WILLIAMS	2.13	154.33	16.62	19.20	1.33
CALLAND	2.25	178.25	14.71	18.44	2.25
WOODWORTH	1.50	139.75	13.73	31.38	1.17
CLARK 63	1.50	167.42	15.21	29.56	1.58
BRAGG	1.53	170.42	12.23	19.98	2.08
GRAND MEAN	1.54	172.27	20.69	23.74	1.49
NUMBER EXPERIMENTS CONTRIBUTING	2	3	4	3	3
STANDARD ERROR OF VARIETY MEAN	0.18	8.22	3.31	6.66	0.18
COEFFICIENT OF VARIATION	32.97%	16.53%	63.89%	97.15%	41.28%
5% LSD VARIETY MEANS (*****=NS)	0.35	*****	9.43	*****	0.52

CORRELATIONS AND NUMBER OF OBSERVATIONS

	YIELD KG/HA	-0.00	0.35***	0.52**	0.03	-0.12
DAYS TO FLOWER	0.120	130	24.5	18.0	18.0	
0.07	0.11	0.67**	-0.16	0.16+		
DAYS TO MATURITY	0.120	130	18.0	12.0	18.0	
0.27**	-0.24**	0.43**	-0.19+	0.23++		
NODULE NUMBER 1	0.120	180	18.0	12.0	18.0	
0.00	-0.21+	0.17+	0.23+	-0.01		
NODULE NUMBER 2	0.50	120	18.0	12.0	12.0	
-0.13	-0.52++	0.33++	0.17	-0.09		
NODULE WEIGHT 1	0.60	120	18.0	12.0	12.0	
0.00	0.00	0.15	0.13	0.00		
NODULE WEIGHT 2	0.00	9.00	6.00	0.16	0.00	
0.0	0	6.0	6.0	0	0	
PLANT HEIGHT	0.06	0.14	0.67**	0.00	0.12	
1.20	130	24.0	18.0	18.0	18.0	
LOGGING	-0.29**	-0.36++	0.15	0.12	-0.05	
1.20	120	120	120	12.0	12.0	
SHATTER	1.00	0.17	0.07	-0.25++	0.26++	
1.20	120	120	120	12.0	12.0	
PLANTS HARVEST	0.17	1.00	-0.05	-0.18	0.15+	
1.20	180	180	18.0	12.0	18.0	
PODS PER PLANT	0.07	-0.05	1.00	-0.03	0.01	
1.20	180	24.0	18.0	18.0	18.0	
100 SEED WEIGHT	-0.25++	-C.13	-0.03	1.00	-0.18+	
1.20	120	120	18.0	12.0	12.0	
QUALITY OF SEED	0.26++	0.15+	0.01	-0.18+	1.00	
1.20	180	180	12.0	12.0	18.0	

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
COLUMBUS	2226.60	25.92	83.33	98.75	162.60	0.94	2.80	52.79	1.08
DAVIS	2213.93	30.33	87.54	88.04	152.40	1.11	2.89	40.63	1.04
CALLAND	2204.55	24.88	84.04	84.67	164.75	0.94	3.22	54.63	1.25
FORREST	2048.14	27.75	86.17	74.42	184.45	0.91	2.47	37.25	1.04
WILLIAMS	1951.95	24.96	82.17	101.50	158.15	0.92	2.97	50.29	1.21
CLARK 63	1913.54	25.38	82.25	70.75	125.70	0.76	2.51	49.13	1.42
RANSOM	1896.46	28.58	89.63	100.21	213.35	0.95	2.79	31.83	1.00
CUTLER 71	1879.53	25.08	82.75	90.00	155.75	1.08	2.89	48.92	1.21
COBB	1875.98	29.63	92.21	73.42	147.50	0.89	2.58	39.29	1.04
HILL	1838.08	29.96	85.88	72.54	121.55	0.90	1.99	36.42	1.17
PICKETT 71	1827.06	28.63	90.38	75.75	146.40	0.98	2.26	26.25	1.00
BRAGG	1813.24	28.54	90.63	72.79	201.30	0.91	3.25	38.67	1.04
BOSSLER	1781.39	27.98	93.71	102.08	185.75	1.08	2.74	32.67	1.00
IMPROVED PELICAN	1701.71	39.08	98.29	75.29	162.85	1.14	2.05	86.75	2.17
WOODWORTH	1550.95	24.42	82.83	58.04	97.60	0.77	2.43	43.96	1.21
GRAND MEAN	1914.91	28.07	87.45	82.55	158.67	0.95	2.66	44.63	1.19
NUMBER EXPERIMENTS CONTRIBUTING	6	6	5	5			4	6	6
STANDARD ERROR OF VARIETY MEAN	112.68	0.76	2.74	10.34	14.90	0.10	0.29	2.17	0.13
COEFFICIENT OF VARIATION	28.83%	13.31%	15.35%	61.34%	42.00%	47.93%	43.36%	23.84%	54.35%
5% LSD VARIETY MEANS (*****=NS)	317.81	2.15	7.73	*****	42.22	*****	*****	6.13	0.37
CORRELATIONS AND NUMBER OF OBSERVATIONS (+ - PROB=.05, ++ - PROB=.01)									
98	YIELD KG/HA	1.00	0.01	-0.02	0.01	0.45++	0.05	0.27++	0.01
	DAYS TO FLOWER	360	360	360	360	300	300	240	360
	DAYS TO MATURITY	0.01	1.00	0.42++	0.21++	0.10	0.37++	-0.04	0.42++
	NODULE NUMBER 1	-0.02	0.42++	1.00	0.21++	0.27++	0.28++	-0.09	0.17++
	NODULE NUMBER 2	0.02	0.27++	0.21++	1.00	0.27++	0.28++	-0.09	0.25++
	NODULE WEIGHT 1	0.05	0.37++	0.23++	0.91++	0.51++	1.00	0.45++	0.16++
	NODULE WEIGHT 2	0.27++	-0.04	-0.03	0.44++	0.45++	0.45++	1.00	0.03
	PLANT HEIGHT	0.01	0.30++	0.25++	0.27++	0.17++	0.28++	0.00	0.08
	LODGING	-0.09	0.42++	0.21++	0.77++	0.03	-0.16++	-0.02	0.40++
	SHATTER	-0.30++	-0.43++	-0.33++	-0.04	-0.22+	-0.19+	-0.24	-0.02
	PODS PER PLANT	-0.22++	-0.38++	-0.05	0.24++	-0.08	0.00	0.00	0.31++
	100 SEED WEIGHT	-0.05	-0.07	-0.03	0.180	0.120	0.120	0.180	0.300
	QUALITY OF SEED	-0.17++	0.51	0.15+	0.14+	0.16+	0.21++	0.17+	0.15+

TABLE 53 COMBINED ANALYSIS OF MESOAMERICAN SITES IN ZONE IV FOR ISVEX-4

VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
COLUMBUS	1.25	197.08	26.62	16.70	2.00
DAVIS	1.42	236.13	26.49	15.94	1.75
CALLAND	2.25	224.83	24.54	19.06	2.81
FORREST	1.33	201.21	27.56	14.43	2.94
WILLIAMS	1.42	212.67	20.70	13.62	2.38
CLARK 63	1.25	215.92	20.13	17.72	2.75
RANSOM	1.08	212.63	22.23	16.51	2.38
CUTLER 71	2.08	199.33	21.51	18.96	2.63
COBB	1.00	199.42	28.82	15.94	2.63
HILL	2.00	236.29	22.35	15.58	2.25
PICKETT 71	2.08	189.79	21.65	16.63	2.31
BRAGG	1.00	211.67	24.80	15.10	3.69
BOSSIER	1.00	166.46	24.21	15.98	2.88
IMPROVED PELICAN	1.25	170.33	42.49	11.17	2.63
WOODWORTH	2.58	206.79	17.69	17.03	3.25

GRAND MEAN 1.53
 NUMBER EXPERIMENTS CONTRIBUTING 3
 STANDARD ERROR OF VARIETY MEAN 0.43
 COEFFICIENT OF VARIATION 97.64%
 5% LSD VARIETY MEANS (****=NS) ****

CORRELATIONS AND NUMBER OF OBSERVATIONS

	YIELD KG/HA	-0.30++	-0.14++	-0.22++	-0.05	-0.17++
99	180	360	300	360	360	240
DAYS TO FLOWER	-0.43++	-0.05	0.33++	-0.07	0.01	
DAYS TO MATURITY	-0.38++	0.24++	0.05	-0.03	0.16+	
NODULE NUMBER 1	-0.04	0.16++	0.24++	0.17++	0.14+	
NODULE NUMBER 2	-0.22+	0.02	-0.03	-0.14+	0.16+	
NODULE WEIGHT 1	-0.19+	0.00	0.41++	0.23++	0.21++	
NODULE WEIGHT 2	-0.24	-0.38++	0.22++	0.23++	0.17+	
PLANT HEIGHT	-0.04	0.24++	0.32++	-0.19++	0.01	
LOGGING	-0.12	-0.00	0.31++	0.18++	0.15+	
SHATTER	1.00	-0.11	0.01	-0.10	0.16	
PLANTS HARVEST	-0.11	1.00	0.14+	0.15++	-0.22++	
PODS PER PLANT	0.01	0.14+	1.00	0.14+	-0.16+	
100 SEED WEIGHT	-0.10	0.15++	0.14+	1.00	-0.03	
QUALITY OF SEED	0.16	-0.22++	-0.16+	-0.03	1.00	
	120	180	300	360	240	240

TABLE 54 EXPERIMENT 90 - YEAR 1976

REGION - AFRICA
 SITE - KHEMIS-MILITANA
 LATITUDE - 36 DEG. 15 MIN. N
 COOPERATOR - I.D.C.I.
 DATE PLANTED - APRIL 19, 1976
 SOIL TYPE - SAND 13%, SILT 21%, CLAY 30%, PH 8.2
 FERTILIZER USED (KG/HA) - P 100.0, K 120.0
 AMOUNT OF MOISTURE - 1060 MM
 NUMBER OF IRRIGATIONS - 48
 LOCAL VARIETIES - TIE FENG 17, KAI YU 3

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1 WEIGHT	MODULE NUMBER 2 WEIGHT	PLANT HEIGHT	LODGING
14	HODGSON	2983.90	41-50	103.00	99.00	163.75	0.54	2.21	47.00	1.00
12	CORSOY	2541.26	41-00	115.00	71.25	129.00	0.35	1.80	49.50	1.00
2	WOODWORTH	2369.41	52.75	115.00	69.25	179.25	0.79	1.43	68.50	1.00
16	STEELE	2327.75	42.75	103.00	108.25	128.00	0.94	1.54	49.75	1.00
9	BEESON	2218.39	41.00	115.00	46.00	101.75	0.23	1.27	62.00	1.00
13	AMSOY 71	2176.73	42.00	115.00	53.00	120.00	0.25	1.10	59.00	1.25
5	WILLIAMS	2152.26	46.75	122.00	102.00	244.75	1.05	1.98	67.00	1.25
8	WELLS	2098.62	41.50	115.00	43.50	70.25	0.35	1.11	47.75	1.00
4	CUTLER 71	2020-51	55.25	129.00	116.50	250.25	2.33	2.37	73.75	1.00
11	KAI YU 3	1859.08	41.50	115.00	38.25	62.50	0.10	0.64	54.00	1.50
1	CALLAND	1791.38	41-00	122.00	61.50	160.00	0.56	2.25	69.00	1.50
15	HARK	1655.98	42.25	105.00	71.00	61.00	0.40	1.51	47.75	1.00
6	CLARK 63	1520.59	45.50	129.00	84.50	157.00	0.62	1.38	56.25	1.00
10	TIE FENG 17	1447.68	47.25	115.00	38.75	119.00	0.42	1.47	56.75	1.50
3	HILL	921.73	59.00	186.00	196.00	105.75	2.45	1.43	70.00	3.00
7	FORREST	510.33	59.00	201.00	202.50	93.75	2.15	1.38	90.75	2.75
100	GRAND MEAN	1912.23	46.25	125.31	87.58	134.13	0.85	1.55	60.55	1.36
	STANDARD ERROR OF A VARIETY MEAN	169.92	1.80	0.00	19.55	32.57	0.43	0.38	4.45	0.26
	COEFFICIENT OF VARIATION	17.77%	7.79%	0.00%	44.65%	48.57%	102.16%	48.68%	14.71%	37.91%
	5% LSD VARIETY MEANS (*****=NS)	484.02	5.13	0.00	55.70	92.77	1.23	*****	12.69	0.73

(+ - PROB=.05 ++ - PROB=.01)

CORRELATIONS

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	-0.48++	-0.48++	-0.69++	-0.26+	-0.57++	-0.02	-0.30+	-0.20	-0.30+	-0.08	-0.04	-0.22	-0.48++
-0.48++	1.00	-0.69++	0.73++	0.00	0.67++	-0.06	0.54++	-0.54++	-0.54++	-0.04	-0.04	-0.04	-0.52++
-0.69++	0.73++	0.00	-0.67++	-0.06	0.23	1.00	0.23	0.68++	0.28+	-0.28+	-0.28+	-0.28+	-0.73++
0.00	0.67++	-0.67++	-0.67++	-0.06	0.23	1.00	0.30+	0.30+	0.79++	0.12	-0.12	-0.12	-0.41++
0.23	-0.06	0.00	0.00	0.23	0.68++	0.30+	1.00	1.00	-0.28+	0.47++	0.47++	0.47++	0.48++
0.00	0.54++	0.54++	-0.54++	-0.08	-0.04	0.28+	0.28+	0.79++	0.00	-0.02	-0.02	-0.02	-0.45++
0.00	-0.08	-0.08	-0.08	-0.04	-0.04	0.41++	0.41++	0.12	0.47++	0.12	0.12	0.12	0.45++
0.12	0.59++	0.59++	0.63++	0.63++	0.41++	0.41++	0.47++	0.47++	0.10	0.10	0.10	0.10	0.54++
0.59++	0.52++	0.52++	0.73++	0.48++	0.48++	0.48++	0.45++	0.45++	0.12	0.54++	0.54++	0.54++	1.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.12	-0.07	-0.13	-0.04	-0.14	-0.14	-0.14	-0.08	-0.15	-0.32++	-0.20	-0.20	-0.20	-0.48++
0.26	-0.20	-0.19	-0.14	-0.02	-0.02	-0.02	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.47++
-0.05	0.28+	0.48++	0.41++	-0.05	-0.05	0.26+	0.30+	0.30+	0.39++	0.39++	0.39++	0.39++	0.47++
-0.11	-0.39++	-0.43++	-0.55++	-0.17	-0.17	-0.46++	-0.17	-0.17	-0.37++	-0.37++	-0.37++	-0.37++	-0.32++

TABLE 54 EXPERIMENT 90 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	HODGSON	1.00	85.75	51.90	14.32	1.50	41.2	22.2
12	CORSOY	1.00	79.00	52.32	12.57	3.00	39.2	24.0
2	WOODWORTH	1.00	72.25	47.75	12.28	2.25	41.0	23.6
16	STEELE	1.00	74.75	40.95	14.58	1.50	42.4	23.5
9	BEESON	1.00	77.25	45.15	13.18	3.00	40.7	21.7
13	AMSOY 71	1.00	71.75	47.05	13.66	3.00	38.8	21.5
5	WILLIAMS	1.00	73.75	64.32	13.47	1.75	40.2	23.6
8	WELLS	1.00	84.00	51.05	12.26	2.25	40.0	23.5
4	CUTLER 71	1.00	75.25	42.00	12.03	2.25	43.0	20.4
11	KAI YU 3	1.00	39.25	63.75	14.24	3.25	39.9	21.6
1	CALLAND	1.00	70.00	48.55	11.79	3.50	43.0	19.6
15	HARK	1.00	69.00	45.95	12.21	3.75	40.4	22.3
6	CLARK 63	1.00	79.25	33.47	11.01	3.00	--	--
10	TIE PENG 17	1.00	72.75	50.42	10.89	4.25	42.3	19.3
3	HILL	1.00	76.00	53.27	15.48	1.25	--	--
7	FORREST	1.00	61.75	32.35	17.81	1.00	43.9	20.1
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 55 EXPERIMENT 239 YEAR 1976

YEAR 1976

REGION - AFRICA
 SITE - PARAKOU
 LATITUDE - 9 DEG. 58 MIN. N
 COOPERATOR - I.R.A.T.-BENIN
 DATE PLANTED - JULY 22, 1976
 SOIL TYPE - SAND, PH 5.7
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 AMOUNT OF MOISTURE - 689 MM
 LOCAL VARIETY - 72-20-57-2

COUNTRY - BENIN
 ELEVATION - 358 M
 LONGITUDE - 2 DEG. 44 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
9	JUPITER	3467.36	50.75	115.00	291.50	407.25	3.28	4.25	74.00	1.75
7	TGX 13-3-2644	3242.31	43.75	107.75	335.75	577.50	5.20	6.30	71.50	1.00
16	72-20-57-2	3217.31	52.00	117.00	368.25	449.50	4.12	4.98	86.50	1.00
2	TGM 210-1-2363	3175.63	44.50	101.00	209.00	317.00	3.30	3.80	67.00	1.00
5	TGM 294-4-2371	3058.94	51.00	100.75	234.50	434.75	3.23	4.32	69.25	1.00
1	TGM 220-1-2205	3025.60	49.75	101.50	247.50	319.00	3.45	5.18	48.75	1.00
14	DAVIS	3000.60	39.75	98.25	244.00	336.50	4.20	4.98	34.50	1.00
8	TGH 256-1-B	2717.21	45.50	101.00	304.25	477.50	4.23	6.82	62.75	1.00
4	TGM 249-4-B	2650.53	38.50	98.00	334.50	751.25	4.20	6.75	71.25	1.00
6	TGX 66-5100	2375.47	43.00	98.00	217.75	433.25	3.80	5.90	66.50	1.00
3	TGM 255-2-4341	2325.46	41.00	101.00	292.00	485.00	3.05	5.33	53.50	1.00
13	COBB	2267.12	38.75	98.75	259.50	546.00	5.30	7.30	36.25	1.00
11	WILLIAMS	2175.43	35.00	92.00	323.50	350.25	3.60	4.55	45.75	1.00
15	IMPROVED PELICAN	2158.76	41.75	98.00	207.00	325.75	2.80	3.43	83.25	1.00
12	CLARK 63	2108.75	35.00	95.75	296.00	324.50	3.45	4.43	49.00	1.00
10	BOSSIER	1533.64	35.00	99.50	274.00	450.25	4.20	5.18	27.50	1.00
GRAND MEAN										
		2656.26	42.81	101.45	277.44	436.58	3.84	5.22	59.20	1.05
		197.73	0.99	1.23	33.67	48.80	0.38	0.54	3.51	0.06
		14.89%	4.61%	2.43%	24.27%	22.36%	19.67%	20.64%	11.84%	11.94%
		563.21	2.81	3.51	95.92	139.01	1.07	1.53	9.98	0.18

(+ - PROB=.05 ++ - PROB=.01)

CORRELATIONS

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS PER HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.62++	0.62++	0.53++	0.11	0.03	0.09	0.05	0.51++	0.24	0.55++	0.28+	0.45++	0.00
0.62++	1.00	0.67++	-0.01	-0.03	-0.11	-0.08	-0.05	-0.08	0.00	0.00	0.00	0.00	0.00
0.53++	0.67++	1.00	0.25+	0.09	0.07	0.05	0.40++	0.47++	0.02	0.02	0.02	0.02	0.02
0.11	-0.01	0.25+	1.00	0.42++	1.00	0.53++	0.77++	0.14	-0.00	-0.19	-0.16	-0.13	-0.13
-0.03	-0.03	0.09	0.42++	1.00	0.57++	1.00	0.71++	0.14	-0.12	-0.12	-0.12	-0.12	-0.12
0.09	-0.11	0.07	0.57++	0.53++	0.40++	0.77++	0.71++	1.00	-0.00	-0.00	-0.00	-0.00	-0.00
-0.08	-0.08	-0.05	0.40++	0.47++	0.47++	0.14	-0.19	-0.12	1.00	1.00	1.00	1.00	1.00
0.51++	0.55++	0.55++	0.47++	0.45++	0.45++	0.05	-0.16	-0.13	0.18	0.18	0.18	0.18	0.18
0.24	0.28+	0.28+	0.45++	0.45++	0.45++	0.02	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.18	0.16	-0.05	-0.18	-0.37++	-0.12	-0.33++	-0.12	-0.12	-0.13	-0.13	-0.13	-0.13	-0.13
0.21	0.31+	0.40++	0.17	0.31+	0.07	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
0.02	-0.34++	-0.18	0.00	-0.12	-0.25+	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 55 EXPERIMENT 239 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	1.00	108.50	45.75	22.28	0.00	39.2	24.0
7	TGX 13-3-2644	1.00	132.75	30.00	21.33	0.00	41.0	23.7
16	72-20-57-2	1.00	136.00	60.50	15.73	0.00	42.2	21.2
2	TGM 210-1-2363	1.00	151.50	30.25	21.80	0.00	42.0	21.6
5	TGM 294-4-2371	1.00	167.50	30.75	20.10	0.00	45.4	20.7
1	TGM 220-1-2205	1.00	90.50	36.00	18.98	0.00	41.4	22.8
14	DAVIS	1.00	153.25	26.25	23.63	0.00	42.9	22.4
8	TGM 256-1-B	1.00	130.00	35.00	16.48	0.00	--	--
4	TGM 249-4-B	1.00	80.75	59.00	18.73	0.00	40.6	22.2
6	TGX 66-5100	1.00	118.75	40.50	17.40	0.00	45.2	19.4
3	TGM 255-2-4341	1.00	98.75	63.25	14.33	0.00	41.9	23.4
13	COBB	1.00	116.00	30.25	22.13	0.00	41.5	23.3
11	WILLIAMS	1.00	150.50	18.75	23.63	0.00	42.4	23.7
15	IMPROVED PELICAN	1.00	125.00	41.75	14.90	0.00	41.9	23.2
12	CLARK 63	1.00	130.25	22.50	21.80	0.00	41.9	22.5
10	BOSSIER	1.00	92.00	28.75	23.18	0.00	45.4	21.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% 1ST VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.18	0.21	0.02	0.00	0.00	0.00
DAYS TO FLOWER	0.00	0.16	0.31+	-0.34++	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	-0.05	0.40++	-0.18	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.00	-0.18	0.17	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	-0.37++	0.31+	-0.12	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	-0.12	-0.07	0.25+	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	-0.33++	0.14	-0.03	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.02	0.51++	-0.54++	0.00	0.00	0.00	0.00
LODGING	0.00	-0.13	0.12	0.18	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.49++	0.21	-0.62++	0.00	0.00	0.00
PODS PER PLANT	0.00	-0.49++	1.00	-0.62++	1.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.21	-0.62++	0.00	0.00	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 56 **EXPERIMENT 271** **YEAR 1976**

REGION - AFRICA	COUNTRY - BENIN
SITE - SAVE	ELEVATION - 200 M
SITE LATITUDE - 8 DEG. N	LONGITUDE - 2 DEG. 40 MIN. E
COOPERATOR - E. LIMBURG	DATE HARVESTED - NOVEMBER, 1976
DATE PLANTED - AUGUST 24, 1976	
SOIL TYPE - SAND, PH 6.5	
FERTILIZER USED (KG/HA) - N 15.0, P 25.0, K 15.0	
AMOUNT OF MOISTURE - 267 MM	
LOCAL VARIETY - FOREST (BENIN)	

TABLE 56 EXPERIMENT 271 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	DAVIS	0.00	76.00	0.00	0.00	0.00
13	COBB	0.00	77.00	0.00	0.00	0.00
15	IMPROVED PELICAN	0.00	56.75	0.00	0.00	0.00
5	TGM 294-4-2371	0.00	133.25	0.00	0.00	0.00
11	WILLIAMS	0.00	37.00	0.00	0.00	0.00
16	FORREST (BENIN)	0.00	38.75	0.00	0.00	0.00
4	TGM 249-4-B	0.00	40.50	0.00	0.00	0.00
2	TGM 210-1-2363	0.00	75.25	0.00	0.00	0.00
7	TGX 13-3-2644	0.00	72.75	0.00	0.00	0.00
10	BOSSIER	0.00	27.50	0.00	0.00	0.00
6	TGX 66-5-100	0.00	62.00	0.00	0.00	0.00
12	CLARK 63	0.00	27.75	0.00	0.00	0.00
1	TGM 220-1-2205	0.00	9.50	0.00	0.00	0.00
8	TGM 256-1-B	0.00	58.00	0.00	0.00	0.00
3	TGM 255-2-4341	0.00	7.00	0.00	0.00	0.00
9	JUPITER	0.00	1.75	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1st VARIETY MEANS (*****=NS)						
CORRELATIONS						
			(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)	
	YIELD	KG/HA	0.00	0.54++	0.00	0.00
	DAYS TO FLOWER		0.00	0.30+	0.00	0.00
	DAYS TO MATURITY		0.00	0.08	0.00	0.00
	NODULE NUMBER 1		0.00	0.00	0.00	0.00
	NODULE NUMBER 2		0.00	0.00	0.00	0.00
	NODULE WEIGHT 1		0.00	0.00	0.00	0.00
	NODULE WEIGHT 2		0.00	0.00	0.00	0.00
	PLANT HEIGHT		0.00	-0.03	0.00	0.00
	LODGING		0.00	0.00	0.00	0.00
	SHATTER		1.00	0.00	0.00	0.00
	PLANTS HARVEST		0.00	1.00	0.00	0.00
	PODS PER PLANT		0.00	0.00	1.00	0.00
	100 SEED WEIGHT		0.00	0.00	1.00	0.00
	QUALITY OF SEED		0.00	0.00	0.00	1.00

TABLE 57 EXPERIMENT 150 YEAR 1976

REGION - AFRICA	COUNTRY - BOTSWANA
SITE - GABORONE	ELEVATION - 994 M.
LATITUDE - 24 DEG. 34 MIN. S	LONGITUDE - 25 DEG. 57 MIN. E
COOPERATOR - P.G. LEE	DATE HARVESTED - MARCH, 1977
DATE PLANTED - NOVEMBER 25, 1976	
SOIL TYPE - PH 5.7	
FERTILIZER USED (KG/HA) - N 25.0,	P 37.0, K 25.0
AMOUNT OF MOISTURE - 439 MM	

TABLE 57 EXPERIMENT 150 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	0.00	0.00	0.00	17.81	0.00
8	BOSSIER	0.00	0.00	0.00	16.31	0.00
4	RANSOM	0.00	0.00	0.00	18.82	0.00
3	BRAGG	0.00	0.00	0.00	18.91	0.00
12	FORREST	0.00	0.00	0.00	15.58	0.00
6	PICKETT 71	0.00	0.00	0.00	16.97	0.00
7	CUTLER 71	0.00	0.00	0.00	18.37	0.00
1	CALLAND	0.00	0.00	0.00	19.15	0.00
10	CLARK 63	0.00	0.00	0.00	18.53	0.00
5	HILL	0.00	0.00	0.00	15.82	0.00
16	ESSEX	0.00	0.00	0.00	17.18	0.00
9	WILLIAMS	0.00	0.00	0.00	19.06	0.00
15	COLUMBUS	0.00	0.00	0.00	16.05	0.00
2	WOODWORTH	0.00	0.00	0.00	19.00	0.00
13	WELLS	0.00	0.00	0.00	17.13	0.00
14	BEESON	0.00	0.00	0.00	18.60	0.00
STANDARD ERROR OF A VARIETY MEAN		0.00	0.00	0.00	17.71	0.00
COEFFICIENT OF VARIATION		0.00%	0.00%	0.00%	0.95	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	0.00	0.00	10.68%	0.00%
					*****	0.00
CORRELATIONS		(+ - PROB=.05	(+ - PROB=.01)			
YIELD	KG/HA	0.00	0.00	0.00	0.10	0.00
DAYS TO FLOWER	0.00	0.00	0.00	-0.37*	0.00	
DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE 58 EXPERIMENT 149 YEAR 1976

REGION - AFRICA	COUNTRY - BOTSWANA
SITE - MAHALAPYE	ELEVATION - 1000 M
LATITUDE - 23 DEG. 7 MIN. S	LONGITUDE - 26 DEG. 50 MIN. E
COOPERATOR - LYNN A. MILLER	
DATE PLANTED - NOVEMBER 3, 1976	
SOIL TYPE - SAND 78%, SILT 14%, CLAY 8%, PH 5.3	
LOCAL VARIETIES - GEDULD, MASTERPIECE	

TABLE 58 EXPERIMENT 149 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	RANSON	0.00	0.00	0.00	0.00	0.00
7	BOSSIER	0.00	0.00	0.00	0.00	0.00
5	PICKETT 71	0.00	0.00	0.00	0.00	0.00
8	DAVIS	0.00	0.00	0.00	0.00	0.00
2	BRAGG	0.00	0.00	0.00	0.00	0.00
9	FORREST	0.00	0.00	0.00	0.00	0.00
12	MASTERPIECE	0.00	0.00	0.00	0.00	0.00
11	GEDULD	0.00	0.00	0.00	0.00	0.00
1	CALLAND	0.00	0.00	0.00	0.00	0.00
4	HILL	0.00	0.00	0.00	0.00	0.00
10	WELLS	0.00	0.00	0.00	0.00	0.00
6	CUTLER 71	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00	0.00
NODEL NUMBER 1	0.00	0.00	0.00	0.00	0.00	0.00
NODEL NUMBER 2	0.00	0.00	0.00	0.00	0.00	0.00
NODEL WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00
NODEL WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	0.00

TABLE 59 EXPERIMENT 171 YEAR 1976

REGION - AFRICA
 SITE - BUHORO
 LATITUDE - 3 DEG. S
 COOPERATOR - J. DE BRABANDERE
 DATE PLANTED - MARCH 4, 1977
 AMOUNT OF MOISTURE - 550 MM
 LOCAL VARIETIES - PALMETTO, OGDEN

COUNTRY - BURUNDI
 ELEVATION - 1450 M
 DATE HARVESTED - MAY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	MATURITY	NUMBER 1	MODULE NUMBER 2	WEIGHT 1	WEIGHT 2	PLANT HEIGHT	MODULE NUMBER	WEIGHT 1	WEIGHT 2	PLANT HEIGHT	LODGING
18	OGDEN	1546.14	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	1487.80	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	COBB	1316.93	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	COLUMBUS	981.45	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	FORREST	981.45	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	IMPROVED PELICAN	939.77	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	DAVIS	827.25	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	HILL	798.08	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	WILLIAMS	702.22	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	PALMETTO	685.55	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	CALLAND	627.21	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	CLARK 63	614.71	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	BOSSIER	602.20	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	BRAGG	564.70	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	RANSOM	525.10	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	PICKETT 71	516.77	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	JUPITER	464.68	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	460.51	0.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		813.47	0.00	105.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		122.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5% LSD VARIETY MEANS (**NS=NS)		30.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
CORRELATIONS (* - PROB=.05 ** - PROB=.01)														
YIELD	KG/HA	1.00	0.00	0.63**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAY TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAY TO MATURITY	0.63**	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 59 EXPERIMENT 171 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
18	OGDEN	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	0.00	0.00	0.00	0.00	0.00
12	COBB	0.00	0.00	0.00	0.00	0.00
16	COLUMBUS	0.00	0.00	0.00	0.00	0.00
15	FORREST	0.00	0.00	0.00	0.00	0.00
14	IMPROVED PELICAN	0.00	0.00	0.00	0.00	0.00
13	DAVIS	0.00	0.00	0.00	0.00	0.00
5	HILL	0.00	0.00	0.00	0.00	0.00
10	WILLIAMS	0.00	0.00	0.00	0.00	0.00
17	PALMETTO	0.00	0.00	0.00	0.00	0.00
1	CALLAND	0.00	0.00	0.00	0.00	0.00
11	CLARK 63	0.00	0.00	0.00	0.00	0.00
9	BOSSIER	0.00	0.00	0.00	0.00	0.00
3	BRAGG	0.00	0.00	0.00	0.00	0.00
4	RANSOM	0.00	0.00	0.00	0.00	0.00
6	PICKETT 71	0.00	0.00	0.00	0.00	0.00
8	JUPITER	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	0.00	0.00	0.00	0.00	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS						
YIELD KG/HA						
DAYS TO FLOWER						
DAYS TO MATURITY						
NODULE NUMBER 1						
NODULE NUMBER 2						
NODULE WEIGHT 1						
NODULE WEIGHT 2						
PLANT HEIGHT						
LODGING						
SHATTER						
PLANTS HARVEST						
PODS PER PLANT						
100' SEED WEIGHT						
QUALITY OF SEED						

TABLE 60 EXPERIMENT 171A **YEAR 1976**

REGION - AFRICA	COUNTRY - BURUNDI
SITE - SEMS-IMBO	ELEVATION - 780 M
LATITUDE - 3 DEG. 20 MIN. S	LONGITUDE - 29 DEG. E
COOPERATOR - DE MARCI	DATE HARVESTED - JULY, 1977
DATE PLANTED - MARCH 14, 1977	
SOIL PH - 7	
FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0	
AMOUNT OF MOISTURE - 304 MM	
LOCAL VARIETY - PALMETTO	

TABLE 60 EXPERIMENT 171A YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	3.25	40.75	25.58	21.75	3.50	43.3	21.6
10	CLARK 63	1.25	41.00	19.15	20.50	2.75	42.6	22.7
2	WOODWORTH	2.25	45.75	16.25	19.75	2.75	41.9	22.3
13	IMPROVED PELICAN	2.00	38.25	46.90	15.00	4.50	45.2	21.8
COBB		2.25	42.50	21.95	20.25	3.25	42.6	22.3
11	DAVIS	2.50	45.75	25.33	20.25	3.50	44.6	19.8
12	PALMETTO	5.00	42.75	19.25	20.25	2.75	46.2	17.8
16	HILL	3.25	38.75	16.65	17.75	3.50	41.1	21.6
5	WILLIAMS	1.50	40.75	11.63	20.00	3.25	42.6	23.2
9	COLUMBUS	3.00	42.75	16.72	21.00	2.50	44.4	21.0
15	FORREST	1.00	36.50	14.15	17.25	4.25	42.9	21.7
14	JUPITER	1.50	43.25	53.15	17.75	4.00	44.1	19.6
7	BOSSIER	1.75	33.25	16.77	19.00	2.50	44.6	20.8
8	PICKETT 71	2.75	38.25	16.40	17.50	3.25	43.2	20.9
6	BRAGG	1.50	50.00	20.20	18.25	4.25	45.0	21.7
3	RANSOM	1.50	41.00	15.58	18.25	3.00	41.7	23.3
4								
	STANDARD ERROR OF A VARIETY MEAN	0.50	2.37	4.86	1.02	0.40		
	COEFFICIENT OF VARIATION	43.99%	11.47%	43.69%	10.72%	23.72%		
	5% LSD VARIETY MEANS (*****=NS)	1.42	6.75	13.83	2.91	1.13		
	CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)							
	YIELD KG/HA	0.13	0.16	0.27*	0.38++	-0.15		
	DAYS TO FLOWER	0.04	-0.03	0.66++	-0.32++	0.34++		
	DAYS TO MATURITY	-0.04	0.06	0.76++	-0.20	0.38++		
	ODULE NUMBER 1	-0.07	-0.07	-0.13	0.20	-0.29+		
	ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
	ODULE WEIGHT 1	0.15	-0.10	-0.11	0.17	-0.28+		
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	0.10	0.19	0.74++	-0.09	0.30+		
	LODGING	0.18	-0.29+	-0.31+	0.08	-0.20		
	SHATTER	1.00	0.02	0.01	0.13	-0.21		
	PLANTS HARVEST	0.02	1.00	0.18	0.01	0.13		
	PODS PER PLANT	0.01	0.18	1.00	-0.17	0.29+		
	100 SEED WEIGHT	0.13	0.01	-0.17	1.00	-0.52++		
	QUALITY OF SEED	-0.21	0.13	0.29+	-0.52++	1.00		

TABLE 61 EXPERIMENT 478 YEAR 1976

REGION - AFRICA
 SITE - DSCHANG
 LATITUDE - 5 DEG. 27 MIN. N
 COOPERATOR - JEAN PRAQUIN
 DATE PLANTED - MARCH 9, 1976
 SOIL PH 5.3
 AMOUNT OF MOISTURE - 1124 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS		
											(+ - PROB=.05	(+ - PROB=.01)	
1	JUPITER	2838.07	55.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	55.75	0.00	
4	IMPROVED PELICAN	2760.97	55.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00	60.25	0.00	
7	DAVIS	2202.52	40.00	117.00	0.00	0.00	0.00	0.00	0.00	0.00	20.75	0.00	
2	HAMPTON 266A	1710.76	40.00	104.00	0.00	0.00	0.00	0.00	0.00	0.00	18.50	0.00	
9	FORREST	1389.86	40.00	111.00	0.00	0.00	0.00	0.00	0.00	0.00	32.25	0.00	
5	COBB	1269.84	40.00	111.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	0.00	
10	COLUMBUS	985.61	40.00	111.00	0.00	0.00	0.00	0.00	0.00	0.00	28.50	0.00	
6	BOSIER	516.77	40.00	111.00	0.00	0.00	0.00	0.00	0.00	0.00	17.25	0.00	
14	SEMMES	516.77	40.00	108.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	
13	CALLAND	410.50	40.00	109.00	0.00	0.00	0.00	0.00	0.00	0.00	23.75	0.00	
3	HARDEE	372.99	40.00	119.00	0.00	0.00	0.00	0.00	0.00	0.00	20.50	0.00	
11	WOODWORTH	331.32	40.00	99.00	0.00	0.00	0.00	0.00	0.00	0.00	19.75	0.00	
12	WILLIAMS	293.81	40.00	104.00	0.00	0.00	0.00	0.00	0.00	0.00	17.25	0.00	
8	TRACY	285.47	40.00	93.00	0.00	0.00	0.00	0.00	0.00	0.00	17.00	0.00	
STANDARD ERROR OF A VARIETY MEAN		GRAND MEAN	1136.66	42.14	110.86	0.00	0.00	0.00	0.00	0.00	0.00	26.50	0.00
COEFFICIENT OF VARIATION		237.01	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	
5% LSD VARIETY MEANS (**=***=NS)		41.78%	0.00%	0.96%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	16.14%	0.00	
		677.99	0.00	1.53	0.00	0.00	0.00	0.00	0.00	0.00	6.12	0.00	
(+ - PROB=.05 + - PROB=.01)													
YIELD	KG/HA	1.00	0.68++	0.59++	0.00	0.00	0.00	0.00	0.00	0.00	0.74++	0.00	
DAYS TO FLOWER		0.68++	1.00	0.65++	0.00	0.00	0.00	0.00	0.00	0.00	0.91++	0.00	
DAYS TO MATURITY		0.59++	0.65++	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63++	0.00	
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT		0.74++	0.91++	0.63++	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.83++	0.56++	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.59++	0.00	
PODS PER PLANT		0.57++	0.58++	0.74++	0.00	0.00	0.00	0.00	0.00	0.00	0.70++	0.00	
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

TABLE 61 EXPERIMENT 478 YEAR 1976 (CONTINUED)

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	JUPITER	0.00	143.50	57.05	0.00	0.00
4	IMPROVED PELICAN	0.00	248.25	39.45	0.00	0.00
7	DAVIS	0.00	148.00	31.00	0.00	0.00
2	HAMPTON 266A	0.00	185.25	16.83	0.00	0.00
9	FORREST	0.00	120.75	35.80	0.00	0.00
5	COBB	0.00	101.75	23.08	0.00	0.00
10	COLUMBUS	0.00	51.50	43.25	0.00	0.00
6	BOSSIER	0.00	50.50	22.35	0.00	0.00
14	SEMMES	0.00	82.75	17.85	0.00	0.00
13	CALLAND	0.00	36.25	22.78	0.00	0.00
3	HARDEE	0.00	18.75	36.97	0.00	0.00
11	WOODWORTH	0.00	38.50	15.38	0.00	0.00
12	WILLIAMS	0.00	36.50	17.30	0.00	0.00
8	TRACY	0.00	63.75	15.58	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		0.00	94.71	28.19	0.00	0.00
COEFFICIENT OF VARIATION		0.00%	17.66	4.04	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		0.00	37.28%	28.69%	0.00%	0.00
		0.00	50.50	11.57	0.00	0.00
C O R R E L A T I O N S				(+ - PROB=.05	+* - PROB=.01)	
YIELD	KG/HA	0.00	0.83**	0.57**	0.00	0.00
DAYS TO FLOWER	0.00	0.56**	0.58**	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.26	0.74**	0.00	0.00	0.00
ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	0.00
ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.59**	0.70**	-0.00	-0.00	-0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.27*	-0.00	-0.00	-0.00
PODS PER PLANT	0.00	0.27*	1.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	0.00

TABLE 62 EXPERIMENT 477 YEAR 1976

REGION - AFRICA
 SITE - SANTCHOU
 LATITUDE - 5 DEG. 12 MIN. N
 COOPERATOR - JEAN PRAQUIN
 DATE PLANTED - MARCH 22, 1976
 SOIL PH 5.6
 AMOUNT OF MOISTURE - 849 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	JUPITER	2479.66	0.00	115.00	114.50	235.50	0.50	1.95	76.00	0.00
4	IMPROVED PELICAN	2362.97	0.00	94.00	119.00	194.00	0.45	2.00	65.00	0.00
7	DAVIS	2183.77	0.00	98.00	61.75	145.75	0.23	1.85	32.00	0.00
13	SEMMES	2175.43	0.00	94.00	95.50	267.25	0.25	1.85	30.00	0.00
5	COBB	2160.85	0.00	98.00	70.00	172.50	0.23	2.23	35.00	0.00
2	HAMPTON 266A	2125.42	0.00	96.00	125.50	213.75	0.30	2.43	30.00	0.00
9	FORREST	2050.41	0.00	94.00	66.00	172.00	0.15	2.05	40.00	0.00
8	TRACY	2035.82	0.00	90.00	86.75	99.25	0.28	1.38	25.00	0.00
3	HARDEE	1964.98	0.00	98.00	80.25	114.50	0.40	1.58	31.00	0.00
10	COLUMBUS	1706.59	0.00	96.00	91.50	186.75	0.30	2.18	45.00	0.00
6	BOSSIER	1154.40	0.00	94.00	79.50	141.50	0.20	1.68	39.00	0.00
12	CALLAND	966.86	0.00	96.00	38.75	140.00	0.15	1.48	40.00	0.00
11	WOODWORTH	954.36	0.00	90.00	62.50	120.75	0.20	1.80	25.00	0.00
STANDARD ERROR OF A VARIETY MEAN										
310.80										
COEFFICIENT OF VARIATION										
33.23%										
5% LSD VARIETY MEANS (*-*-*-*-*-NS)										
891.45										
CORRELATIONS										
(* - PROB=.05 +* - PROB=.01)										
YIELD KG/HA										
DAYS TO FLOWER										
DAYS TO MATURITY										
NODULE NUMBER 1										
NODULE NUMBER 2										
NODULE WEIGHT 1										
NODULE WEIGHT 2										
PLANT HEIGHT										
LODGING										
SHATTER										
PLANTS HARVEST										
PODS PER PLANT										
100 SEED WEIGHT										
QUALITY OF SEED										

TABLE 62 EXPERIMENT 477 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1 JUPITER	0.00	204.00	23.22	0.00	0.00
6 IMPROVED PELICAN	0.00	281.50	19.75	0.00	0.00
7 DAVIS	0.00	278.25	22.40	0.00	0.00
13 SEMMES	0.00	248.50	13.20	0.00	0.00
5 COBB	0.00	190.25	22.75	0.00	0.00
2 HAMPTON 266A	0.00	221.75	15.30	0.00	0.00
9 FORREST	0.00	252.25	18.38	0.00	0.00
8 TRACY	0.00	190.25	15.83	0.00	0.00
3 HARDEE	0.00	165.75	25.92	0.00	0.00
10 COLUMBUS	0.00	165.25	18.38	0.00	0.00
6 BOSSIER	0.00	156.75	17.90	0.00	0.00
12 CALLAND	0.00	105.25	17.23	0.00	0.00
11 WOODWORTH	0.00	176.00	12.83	0.00	0.00
GRAND MEAN	0.00	202.75	18.70	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN	0.00	14.97	2.41	0.00	0.00
COEFFICIENT OF VARIATION	0.00%	14.77%	25.78%	0.00%	0.00%
5% LST VARIETY MEANS (*****=NS)	0.00	42.94	6.91	0.00	0.00

CORRELATIONS

(+- PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.00	0.39++	0.45++	0.00	0.00
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.01	0.39++	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.30*	0.03	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.33+	-0.05	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.12	0.15	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.18	0.11	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.15	0.26	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE VI EXPERIMENT 236 YEAR 1976

REGION - AFRICA
SITE - BOSSANGOA
LATITUDE - 6 DEG. 26 MIN. N
COOPERATOR - M.L. CARMEN
DATE PLANTED - JUNE 28, 1976
AMOUNT OF MOISTURE - 654 MM
LOCAL VARIETIES - AVOYELLE, ABACATUBA

COUNTRY - CENTRAL AFRICAN EMPIRE
ELEVATION - 521 M
LONGITUDE - 17 DEG. 12 MIN. E
DATE HARVESTED - OCTOBER, 1976

TABLE 63 EXPERIMENT 236 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	0.00	0.00	17.50	22.25	1.75
7	BOSSIER	0.00	0.00	15.00	21.25	2.25
8	WILLIAMS	0.00	0.00	12.75	22.50	1.75
4	HARDEE	0.00	0.00	21.75	21.75	2.25
13	FORREST	0.00	0.00	17.50	20.75	2.25
5	ARACATUBA	0.00	0.00	24.00	12.75	1.25
12	IMPROVED PELICAN	0.00	0.00	23.75	15.50	1.75
2	AVOYELLE	0.00	0.00	30.00	12.50	1.50
1	HAMPTON 266A	0.00	0.00	14.75	23.50	2.50
9	CLARK 63	0.00	0.00	11.75	20.25	3.00
3	PALMETTO	0.00	0.00	19.25	15.25	1.75
6	JUPITER	0.00	0.00	21.00	21.75	4.00
10	COBB	0.00	0.00	13.75	21.25	2.25
	GRAND MEAN	0.00	0.00	18.67	19.33	2.17
	STANDARD ERROR OF A VARIETY MEAN	0.00	0.00	2.10	0.84	0.29
	COEFFICIENT OF VARIATION	0.00%	0.00%	22.53%	8.65%	26.99%
	5% LSE VARIETY MEANS (*****=NS)	0.00	0.00	6.03	2.40	0.84

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.00	0.00	0.23	0.04	-0.41**
DAYS TO FLOWER	0.00	0.00	0.66++	-0.50++	0.06	
DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	0.00	0.62++	-0.72++	-0.26	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	
PODS PER PLANT	0.00	0.00	1.00	-0.52++	-0.28+	
100 SEED WEIGHT	0.00	0.00	-0.52++	1.00	0.39++	
QUALITY OF SEED	0.00	0.00	-0.28+	0.39++	1.00	

TABLE 64 EXPERIMENT 170 YEAR 1976

REGION - AFRICA
 SITE - LEKANA
 LATITUDE - 2 DEG. 20 MIN. S
 COOPERATOR - IYETIC OBRAD
 DATE PLANTED - NOVEMBER 25, 1976
 SOIL TYPE - SAND, SILT 2%, CLAY 30%
 FERTILIZER USED (KG/HA) - N 50.0, P 90.0, K 150.0
 AMOUNT OF MOISTURE - 1090 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSTIER	716.81	51.00	104.00	107.00	0.00	1.33	0.00	18.50	1.00
7	JUPITER	704.31	75.00	125.00	87.00	0.00	0.92	0.00	36.25	1.00
5	HILL	670.97	46.00	92.00	81.50	0.00	1.03	0.00	22.00	1.00
3	BRAGG	668.88	47.00	93.00	165.00	0.00	1.55	0.00	18.00	1.00
4	BANSOM	631.38	47.00	93.00	129.25	0.00	1.10	0.00	21.00	1.00
12	DAVIS	614.71	52.50	110.00	89.25	0.00	1.68	0.00	17.50	1.00
15	COLUMBUS	604.29	46.00	92.00	86.50	0.00	1.20	0.00	22.50	1.00
13	IMPROVED PELICAN	579.28	48.00	95.00	75.25	0.00	0.87	0.00	26.75	1.00
1	CALLAND	562.61	46.00	92.00	68.00	0.00	0.90	0.00	22.25	1.00
14	FORREST	475.09	48.00	100.00	65.50	0.00	0.72	0.00	20.00	1.00
9	WILLIAMS	473.01	46.00	90.00	108.75	0.00	1.35	0.00	20.25	1.00
2	WOODWORTH	460.51	47.00	93.00	67.75	0.00	0.83	0.00	27.00	1.00
16	ESSEX	450.09	46.00	90.00	152.50	0.00	1.43	0.00	19.50	1.00
10	CLARK 63	437.59	42.00	88.00	77.50	0.00	0.75	0.00	20.50	1.00
11	COBB	385.49	52.50	110.00	89.75	0.00	1.08	0.00	19.00	1.00
6	PICKETT 71	329.23	46.00	92.00	73.25	0.00	0.72	0.00	17.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION (%)										
5% LSD VARIETY MEANS (****=NS)										
120										
CORRELATIONS (* = PROB=.05 ** = PROB=.01)										
YIELD KG/HA										
DAYS TO FLOWER										
DAYS TO MATURITY										
NODULE NUMBER 1										
NODULE NUMBER 2										
NODULE WEIGHT 1										
NODULE WEIGHT 2										
PLANT HEIGHT										
LOGGING										
SHATTER										
PLANTS HARVEST										
PODS PER PLANT										
100 SEED WEIGHT										
QUALITY OF SEED										

(* = PROB=.05 ** = PROB=.01)

YIELD KG/HA	1.00	0.25+	0.21	0.18	0.00	0.24	0.00	0.20	0.00
DAYS TO FLOWER	0.25+	1.00	0.92++	-0.05	0.00	0.01	0.00	0.50++	0.00
DAYS TO MATURITY	0.21	0.92++	1.00	-0.10	0.00	0.06	0.00	0.32++	0.00
NODULE NUMBER 1	0.18	-0.05	-0.10	1.00	0.00	0.69++	0.00	-0.07	0.00
NODULE NUMBER 2	0.00	0.00	0.00	1.00	0.00	0.00	0.00	-0.08	0.00
NODULE WEIGHT 1	0.24	0.01	0.06	0.69++	1.00	0.00	0.00	-0.08	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	0.20	0.50++	0.32++	-0.07	0.00	-0.08	0.00	1.00	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0.15	-0.20	-0.01	0.00	0.19	0.00	0.04	0.00
PODS PER PLANT	0.59++	0.29+	0.23	0.13	0.00	0.16	0.00	0.36++	0.00
100 SEED WEIGHT	0.23	0.23	0.16	0.21	0.00	0.17	0.00	0.12	0.00
QUALITY OF SEED	-0.04	0.21	0.09	0.18	0.00	-0.11	0.00	0.07	0.00

TABLE 64 EXPERIMENT 170 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.00	182.50	7.20	20.38	1.00	42.8	22.5
7	JUPITER	1.00	160.25	10.50	23.65	2.00	41.0	23.8
5	HILL	1.00	181.25	9.25	19.75	1.00	38.8	22.9
3	BRAGG	1.00	138.25	8.45	24.75	1.00	42.2	22.6
4	RANSOM	1.00	167.25	7.28	22.13	3.00	41.9	24.6
12	DAVIS	1.00	185.00	7.43	22.13	1.00	43.2	21.6
15	COLUMBUS	1.00	145.00	9.22	22.20	1.00	42.9	21.4
13	IMPROVED PELICAN	1.00	131.00	9.32	17.05	1.00	42.0	22.8
1	CALLAND	1.00	164.00	6.60	24.85	1.00	44.5	19.6
14	FORREST	1.00	137.25	7.70	18.03	2.00	41.0	22.3
9	WILLIAMS	1.00	149.75	5.05	20.78	1.00	41.7	23.8
2	WOODWORTH	1.00	138.25	5.40	21.58	1.00	42.0	22.6
16	ESSEX	1.00	160.75	7.48	19.58	2.00	44.4	21.4
10	CLARK 63	1.00	137.50	6.85	19.70	1.00	41.2	22.6
11	COBB	1.00	150.00	6.65	20.35	1.00	41.0	22.4
6	PICKETT 71	1.00	124.50	5.95	18.95	2.00	42.0	21.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
FLOWER 0.00 0.52++								
DAYS TO MATURITY 0.00 0.15 0.59++								
NODULE NUMBER 1 0.00 0.20 0.29+								
NODULE NUMBER 2 0.00 0.01 0.20 0.23								
NODULE WEIGHT 1 0.00 0.00 0.13 0.16								
NODULE WEIGHT 2 0.00 0.00 0.00 0.17								
PLANT HEIGHT 0.00 0.04 0.16 0.00								
LODGING 0.00 0.00 0.00 0.00								
SHATTER 1.00 0.00 0.00 0.00								
PLANTS HARVEST 0.00 1.00 0.17 0.00								
PODS PER PLANT 0.00 0.17 0.02 0.02								
100 SEED WEIGHT 0.00 0.21 0.02 0.04								
QUALITY OF SEED 0.00 0.01 0.04 0.06								

TABLE 65 EXPERIMENT 66 YEAR 1976

REGION - AFRICA
 SITE - BAHTEEM
 LATITUDE - 30 DEG. N
 COOPERATOR - ALI ABDEL AZIZ
 DATE PLANTED - MAY 17, 1976
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 25.00, P 56.25
 NUMBER OF IRRIGATIONS - 7-9
 SUBSTITUTE VARIETY - CLARK

COUNTRY - EGYPT									
ELEVATION - 24 M									
LONGITUDE - 31 DEG. E									
DATE HARVESTED - SEPTEMBER, 1976									
YIELD KG/HA									
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT
16	ESSEX	3406.10	57.00	135.00	200.25	175.00	3.14	3.75	67.00
8	BOSSIER	2948.51	68.75	158.00	134.00	133.75	2.09	2.56	105.25
4	RANSOM	2767.22	64.50	153.25	202.25	177.25	2.44	2.12	86.50
11	DAVIS	2558.84	68.00	134.25	107.25	150.00	1.79	2.73	107.25
7	CUTLER 71	2538.01	40.50	105.75	115.25	223.75	0.46	2.73	76.50
5	HILL	2485.91	62.25	129.00	154.25	102.50	1.26	1.31	72.00
6	PICKETT 71	2398.40	67.75	153.50	72.50	96.00	0.89	1.27	83.75
12	FORREST	2340.05	58.75	132.50	147.50	153.75	1.56	1.76	77.00
3	BRAGG	2292.12	67.50	143.00	227.00	190.00	2.16	2.59	113.50
10	CLARK 63	2265.04	36.50	106.25	84.75	281.50	0.33	3.81	80.50
9	WILLIAMS	2156.68	34.00	98.50	88.25	229.25	0.45	3.43	79.00
15	CLARK	1971.23	36.25	105.25	75.75	142.25	0.34	1.40	72.75
1	CAYLAND	1885.79	34.75	106.00	62.50	142.25	0.34	1.89	68.25
2	WOODWORTH	1654.50	35.75	94.75	115.50	201.25	0.30	3.05	75.75
14	BEESON	1619.07	33.25	93.50	52.00	137.25	0.28	1.39	68.00
13	WELLS	1571.15	33.00	93.75	52.50	123.00	0.38	1.89	61.25
GRAND MEAN									
211.45	0.62	4.07	27.54	41.28	0.32	0.60	5.71	0.27	
18.36%	2.49%	6.70%	46.60%	49.68%	56.63%	51.35%	14.12%	44.00%	
602.29	1.77	11.58	78.45	*****NS	0.92	1.72	16.27	0.76	
STANDARD ERROR OF A VARIETY MEAN									
COEFFICIENT OF VARIATION									
5% LSD VARIETY MEANS (*****NS=NS)									
CORRELATIONS (+ - PROB=.05 +* - PROB=.01)									
YIELD KG/HA	1.00	0.52++	0.54++	0.62++	0.28+	0.68++	0.38++	0.36++	0.20
DAYS TO FLOWER	0.52++	1.00	0.91++	0.43++	-0.20	0.65++	-0.08	0.57++	0.41++
DAYS TO MATURITY	0.54++	0.91++	1.00	0.50++	-0.07	0.70++	0.05	0.47++	0.17
NODULE NUMBER 1	0.62++	0.43++	0.50++	1.00	0.47++	0.78++	0.47++	0.35++	0.29+
NODULE NUMBER 2	0.28+	-0.20	-0.07	0.47++	1.00	0.20	0.86++	-0.12	-0.02
NODULE WEIGHT 1	0.68++	0.65++	0.70++	0.78++	0.20	1.00	0.33++	0.35++	0.08
NODULE WEIGHT 2	0.38++	-0.08	0.05	0.47++	0.86++	0.33++	1.00	0.19	0.36++
PLANT HEIGHT	0.36++	0.57++	0.49++	0.35++	-0.12	0.35++	0.19	-0.00	0.20
LODGING	0.20	0.41++	0.47++	0.17	-0.02	0.29++	0.08	0.36++	1.00
SHATTER	0.09	0.23	0.09	-0.04	-0.05	0.11	0.07	0.33++	0.17
PLANTS HARVEST	0.47++	-0.11	-0.11	0.14	0.17	0.07	0.18	-0.12	-0.11
PODS PER PLANT	0.49++	0.69++	0.64++	0.45++	0.04	0.60++	0.17	0.52++	0.44++
100 SEED WEIGHT	0.09	0.06	0.11	0.14	0.11	0.07	0.06	0.34++	0.30+
QUALITY OF SEED	-0.19	-0.11	-0.12	-0.13	-0.10	-0.03	-0.16	-0.13	0.21

TABLE 65 EXPERIMENT 66 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	194.00	38.75	14.50	1.75	42.1	21.0
8	BOSSIER	1.00	178.75	49.00	17.93	2.00	43.4	20.5
4	RANSOM	1.00	185.75	47.00	17.83	1.75	42.0	22.5
11	DAVIS	2.00	184.75	44.00	16.48	2.00	41.1	21.9
7	CUTLER 71	1.00	193.50	24.00	16.50	1.75	41.6	21.6
5	HILL	1.00	195.75	29.00	14.50	1.00	39.2	21.1
6	PICKETT 71	1.00	198.25	43.25	15.63	1.75	37.7	22.8
12	FORREST	1.00	177.50	31.50	11.65	3.00	39.7	21.6
3	BRAGG	1.00	158.25	44.50	18.50	1.25	42.8	21.4
10	CLARK 63	1.00	175.50	21.25	14.80	1.50	40.6	22.0
9	WILLIAMS	1.00	179.50	27.75	15.28	1.50	40.9	23.0
15	CLARK	1.00	190.25	15.25	16.58	1.75	40.1	20.8
1	CALLAND	1.25	184.75	19.50	17.73	2.50	38.0	21.7
2	WOODWORTH	1.00	190.25	27.25	16.15	2.25	39.0	24.3
14	BEESON	1.00	193.75	21.00	17.95	2.00	41.2	22.9
13	WELLS	1.00	189.50	28.50	13.78	2.00	40.1	20.8
	GRAND MEAN	1.08	185.63	31.97	15.98	1.86		
	STANDARD ERROR OF A VARIETY MEAN	0.06	9.16	4.88	0.78	0.29		
	COEFFICIENT OF VARIATION	11.59%	9.87%	30.55%	9.71%	30.74%		
5*	LSD VARIETY MEANS (*****=NS)	0.18	*****	13.91	2.21	0.81		
	C O R R E L A T I O N S	(+ - PROB=.05	+ + - PROB=.01)					
	YIELD KG/HA	0.09	0.47+	0.49++	0.09	-0.19		
	DAYS TO FLOWER	0.23	-0.11	0.69++	0.06	-0.11		
	DAYS TO MATURITY	0.09	-0.11	0.64++	0.11	-0.12		
	NODULE NUMBER 1	-0.04	0.14	0.45++	0.14	-0.13		
	NODULE NUMBER 2	-0.05	0.17	0.04	0.11	-0.10		
	NODULE WEIGHT 1	0.11	0.07	0.60++	0.07	-0.03		
	NODULE WEIGHT 2	0.07	0.18	0.17	0.06	-0.16		
	PLANT HEIGHT	0.33++	-0.12	0.52++	0.34++	-0.13		
	LODGING	0.17	-0.11	0.44++	0.30++	0.21		
	SHATTER	1.00	0.03	0.21	0.08	0.06		
	PLANTS HARVEST	0.03	1.00	0.01	0.08	-0.13		
	PLANT	0.21	0.01	1.00	0.24	-0.09		
	PODS PER	0.08	0.08	0.24	1.00	-0.28+		
	100 SEED WEIGHT	0.06	-0.13	-0.09	-0.28+	1.00		
	QUALITY OF SEED							

TABLE 66 EXPERIMENT 109 YEAR 1976

REGION - AFRICA
 SITE - GIZA
 LATITUDE - 29 DEG. N
 COOPERATOR - SAMIA ALL MAHMOUD
 DATE PLANTED - DECEMBER 8, 1976
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 108.0, P 37.5
 NUMBER OF IRRIGATIONS - 4
 SUBSTITUTE VARIETY - CLARK

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS (* - PROB=.05 ** - PROB=.01)
1	CALLAND	5021.84	83.00	165.00	0.00	0.00	0.00	0.00	36.00	1.00	
6	WELLS	4300.86	88.00	159.00	0.00	0.00	0.00	0.00	12.75	1.00	
3	CUTLER 71	4092.48	88.00	165.00	0.00	0.00	0.00	0.00	70.50	1.00	
4	WILLIAMS	3971.63	83.00	159.00	0.00	0.00	0.00	0.00	24.25	1.00	
9	AMSOY 71	3813.26	91.00	159.00	0.00	0.00	0.00	0.00	21.75	1.00	
2	WOODWORTH	3804.93	84.00	159.00	0.00	0.00	0.00	0.00	28.75	1.00	
7	BEESON	3579.88	88.00	174.00	0.00	0.00	0.00	0.00	42.25	1.00	
5	CLARK 63	3371.51	88.00	159.00	0.00	0.00	0.00	0.00	22.75	1.00	
10	HODGSON	3167.30	89.00	160.50	0.00	0.00	0.00	0.00	34.25	1.00	
13	ALTONA	2608.85	81.00	154.00	0.00	0.00	0.00	0.00	21.00	1.00	
11	HARK	2096.25	81.00	154.00	0.00	0.00	0.00	0.00	19.50	1.00	
8	CLARK	1508.63	81.00	159.00	0.00	0.00	0.00	0.00	37.75	1.00	
12	SWIFT	770.99	79.00	154.00	0.00	0.00	0.00	0.00	15.50	1.00	
STANDARD ERROR OF A VARIETY MEAN		GRAND MEAN	3239.11	84.92	160.04	0.00	0.00	0.00	0.00	29.77	1.00
COEFFICIENT OF VARIATION		529.55	0.55	0.42	0.00	0.00	0.00	0.00	3.17	0.00	
5% LSD VARIETY MEANS (*****=NS)		32.70%	1.31%	0.52%	0.00%	0.00%	0.00%	0.00	21.31%	0.00	
		1518.86	1.59	1.19	0.00	0.00	0.00	0.00	9.10	0.00	
C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)											
YIELD	KG/HA	1.00	0.38**	0.43**	0.00	0.00	0.00	0.00	0.22	0.00	
DAYS TO FLOWER		0.38**	1.00	0.45**	0.00	0.00	0.00	0.00	0.21	0.00	
DAYS TO MATURITY		0.43**	0.45**	1.00	0.00	0.00	0.00	0.00	0.62**	0.00	
NODULE NUMBER 1		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
PLANT HEIGHT		0.22	0.21	0.62**	0.00	0.00	0.00	0.00	1.00	0.00	
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PODS PER PLANT		0.89**	0.30+	0.38**	0.00	0.00	0.00	0.00	0.15	0.00	
100 SEED WEIGHT		0.41**	0.35+	0.53**	0.00	0.00	0.00	0.00	0.19	0.00	
QUALITY OF SEED		-0.11	-0.01	-0.05	0.00	0.00	0.00	0.00	-0.04	0.00	

TABLE 66 EXPERIMENT 109 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN IN	PERCENT OIL
1	CALLAND	1.00	10.00	22.70	17.13	1.25	38.8	20.7
6	WELLS	1.00	10.00	19.20	15.58	1.75	41.7	20.3
3	CUTLER 71	1.00	10.00	16.25	15.88	1.75	39.5	20.5
4	WILLIAMS	1.00	10.00	17.50	16.43	1.25	42.0	20.1
9	AMSOY 71	1.00	10.00	19.60	15.83	1.50	41.7	19.5
2	WOODWORTH	1.00	10.00	18.58	14.68	2.00	38.2	20.8
7	BEESON	1.00	10.00	14.95	20.48	2.00	43.2	19.8
5	CLARK 63	1.00	10.00	14.15	14.45	2.00	39.4	20.5
10	HODGSON	1.00	10.00	12.25	17.98	1.75	43.9	17.4
13	ALTONA	1.00	10.00	8.55	15.93	2.50	45.8	15.9
11	HARK	1.00	10.00	12.13	15.18	1.50	44.7	18.8
8	CLARK	1.00	10.00	8.10	13.90	1.25	41.0	19.0
12	SWIFT	1.00	10.00	6.70	12.20	2.00	44.4	16.5
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)								
YIELD	KG/HA	0.00	0.00	0.89**	0.41**	-0.11		
DAYS TO FLOWER	0.00	0.00	0.00	0.30*	0.35*	-0.01		
DAYS TO MATURITY	0.00	0.00	0.00	0.38**	0.53**	-0.05		
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT	0.00	0.00	0.15	0.19	-0.04	0.00		
LODGING	0.00	0.00	0.00	0.00	0.00	0.00		
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	0.00		
PODS PER PLANT	0.00	0.00	1.00	0.23	0.23	-0.18		
100 SEED WEIGHT	0.00	0.00	0.23	1.00	1.00	-0.23		
QUALITY OF SEED	0.00	0.00	-0.18	-0.23	1.00			

TABLE 67 EXPERIMENT 67 YEAR 1976

REGION - AFRICA
 SITE - SEEDS
 LATITUDE - 29 DEG. N
 COOPERATOR - ALL ABDEL AZIZ
 DATE PLANTED - JUNE 1, 1976
 SOIL TYPE - CLAY LOAM, PH 8.0
 FERTILIZER USED (KG/HA) - N 75.0, P 37.5
 NUMBER OF IRRIGATIONS - 5-6
 SUBSTITUTE VARIETY - CLARK

		COUNTRY - EGYPT										
		ELEVATION - 41 M					LONGITUDE - 31 DEG. E					
		DATE HARVESTED - SEPTEMBER, 1976					DATE HARVESTED - SEPTEMBER, 1976					
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING		
10	CLARK 63	26.67	2.0	30.75	112.50	30.50	26.00	0.05	0.22	68.75	1.25	
4	RANSON	22.71	2.9	48.75	136.25	33.00	59.75	0.43	0.57	75.00	2.00	
11	DAVIS	22.50	4.5	51.00	128.75	69.75	87.25	1.05	1.70	76.25	2.00	
12	FORREST	22.08	7.7	43.00	116.25	20.25	51.50	1.14	0.60	66.25	1.00	
7	CUTLER 71	21.67	1.0	30.50	97.50	25.00	18.75	0.02	0.14	52.50	1.00	
5	HILL	20.62	9.1	46.50	110.00	24.75	38.50	0.27	0.39	60.00	1.00	
15	CLARK	19.79	5.6	29.75	100.00	22.50	32.00	0.04	0.62	56.25	1.00	
16	ESSEX	19.50	3.9	45.00	127.50	31.00	58.25	0.29	0.87	51.25	1.00	
9	WILLIAMS	18.54	5.4	32.00	90.00	17.50	32.25	0.01	0.32	53.75	1.00	
6	PICKETT 71	17.29	5.1	60.25	136.25	15.25	92.25	0.28	1.08	67.50	1.75	
14	BEESON	16.37	8.3	28.50	88.75	27.25	28.75	0.02	0.24	50.50	1.00	
13	WELLS	16.04	4.9	28.25	90.00	19.75	31.25	0.03	0.36	42.50	1.00	
3	BRAGG	15.62	8.1	60.50	138.75	21.25	28.50	0.26	0.19	96.25	2.25	
1	CALLAND	15.21	1.4	32.25	101.25	20.75	27.75	0.03	0.61	66.25	1.00	
2	WOODWORTH	14.58	6.2	30.75	85.00	21.75	19.00	0.03	0.10	52.50	1.00	
8	BOSSIER	12.29	4.1	60.50	142.50	51.75	80.25	0.91	0.73	93.75	2.25	
		GRAND MEAN	18.84	7.5	41.14	112.58	28.25	44.52	0.24	0.55	64.30	1.34
		VARIETY MEAN	23.5	3.8	1.21	2.89	14.31	15.52	0.22	0.25	3.35	0.19
		COEFFICIENT OF VARIATION	24.98%		5.86%	5.14%	101.28%	69.72%	177.91%	93.13%	10.41%	28.69%
		LSD VARIETY MEANS (**NS=NS)	670.45		3.44	8.25	****	44.20	0.61	0.73	9.54	0.55
CORRELATIONS (* - PROB=.05 ** - PROB=.01)												
YIELD	KG/HA	1.00	-0.08	0.04	-0.06	0.04	-0.09	-0.06	0.06	-0.05	-0.03	
DAYS TO FLOWER		-0.08	1.00	0.90**	0.18	0.49**	0.46**	0.33**	0.71**	0.67**		
DAYS TO MATURITY		0.04	0.90**	1.00	0.20	0.51**	0.44**	0.38**	0.73**	0.70**		
NODULE NUMBER 1		-0.06	-0.18	0.20	1.00	0.33**	0.82**	0.41**	0.14	0.16		
NODULE NUMBER 2		0.09	0.49**	0.51**	0.33**	1.00	0.44**	0.83**	0.32**	0.28		
NODULE WEIGHT 1		-0.06	0.46**	0.44**	0.82**	1.00	0.44**	0.51**	0.31	0.38**		
NODULE WEIGHT 2		0.06	0.33**	0.38**	0.41**	0.83**	0.51**	0.22	0.22			
PLANT HEIGHT		-0.05	0.71**	0.73**	0.14	0.32**	0.31*	0.22	1.00	0.72**		
LODGING		-0.03	0.67**	0.70**	0.16	0.28*	0.38**	0.17	0.72**	1.00		
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.32*	-0.28*	-0.21	-0.06	-0.08	-0.09	-0.15	-0.15	-0.10		
PODS PER PLANT		0.22	0.44**	0.51**	0.10	0.38*	0.26*	0.32*	0.26*	0.39**		
100 SEED WEIGHT		0.18	-0.07	0.02	0.01	-0.04	0.07	0.08	0.14	0.14		
QUALITY OF SEED		-0.35**	-0.20	-0.35**	-0.15	-0.36**	-0.23	-0.39**	-0.04	-0.10		

TABLE 67 EXPERIMENT 67 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT OF SEED	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
10	CLARK 63	1.00	216.25	23.50	13.27	1.50	38.5	22.8
4	RANSOM	1.00	228.50	34.50	14.70	2.00	39.8	25.0
11	DAVIS	1.00	225.00	29.25	14.64	1.00	40.3	22.2
12	FORREST	1.00	211.75	18.75	15.26	2.25	39.2	22.2
7	CUTLER 71	1.00	209.50	18.00	15.42	1.75	40.5	23.5
5	HILL	1.00	196.00	21.00	12.21	2.00	38.8	22.7
15	CLARK	1.00	243.00	17.50	16.76	2.00	40.6	19.8
16	ESSEX	1.00	178.50	35.50	13.21	1.00	40.4	22.0
9	WILLIAMS	1.00	219.00	15.00	14.17	2.75	40.6	21.9
6	PICKETT 71	1.00	200.50	30.25	13.60	1.25	38.9	22.6
14	BEESON	1.00	204.75	20.00	14.50	2.75	40.3	21.3
13	WELLS	1.00	209.25	18.00	12.33	2.00	39.5	23.5
3	BRAGG	1.00	191.00	29.50	13.84	2.75	41.8	20.0
1	CALLAND	1.00	194.50	15.50	15.73	2.50	40.0	20.5
2	WOODWORTH	1.00	203.50	22.00	12.64	3.00	40.0	24.9
8	BOSSIER	1.00	170.75	25.75	14.77	2.25	42.4	20.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
0.00								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 68 EXPERIMENT 53 YEAR 1976

REGION - AFRICA
 SITE - AWASSA
 LATITUDE - 7 DEG. N
 COOPERATOR - AWASSA EXPERIMENT STATION
 DATE PLANTED - JUNE 16, 1976
 SOIL TYPE - SAND 37.0%, SILT 33.4%, CLAY 15.2%, PH 6.1
 FERTILIZER USED (KG/HA) - N 18.0, P 46.0
 AMOUNT OF MOISTURE - 747 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER		NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
					NUMBER 1	NUMBER 2				
5	HILL	2638.03	69.00	159.00	129.50	211.75	0.00	0.00	41.25	0.00
13	IMPROVED PELICAN	2100.42	90.00	175.00	127.50	209.50	0.00	0.00	87.50	0.00
12	DAVIS	1919.13	70.00	150.75	146.75	179.00	0.00	0.00	36.50	0.00
15	COLUMBUS	1837.87	47.50	159.00	259.25	292.00	0.00	0.00	39.00	0.00
11	COBB	1833.70	66.25	159.00	155.00	199.50	0.00	0.00	43.75	0.00
16	ESSEX	1587.82	58.00	159.00	232.50	221.25	0.00	0.00	38.00	0.00
14	FORREST	1479.46	58.00	159.00	147.75	269.25	0.00	0.00	38.75	0.00
4	RANSOM	1279.42	57.75	159.00	323.50	254.25	0.00	0.00	27.75	0.00
9	WILLIAMS	1256.50	53.00	146.50	262.00	233.00	0.00	0.00	30.25	0.00
1	CALLAND	1212.74	44.75	159.00	148.75	169.25	0.00	0.00	30.75	0.00
7	CUTLER 71	1181.49	47.50	159.00	234.25	202.75	0.00	0.00	29.75	0.00
8	BOSSIER	1104.39	57.75	159.00	240.25	215.00	0.00	0.00	35.00	0.00
6	PICKETT 71	1050.21	58.00	148.00	94.25	136.50	0.00	0.00	23.25	0.00
10	CLARK 63	991.86	46.50	156.25	210.00	181.75	0.00	0.00	29.25	0.00
2	WOODWORTH	954.36	52.50	135.25	188.00	122.50	0.00	0.00	30.00	0.00
3	BRAGG	750.15	58.00	159.00	128.50	213.75	0.00	0.00	32.00	0.00
		GRAND MEAN	1448.60	58.41	156.36	189.23	206.94	0.00	0.00	37.05
		STANDARD ERROR OF A VARIETY MEAN	150.06	2.50	2.10	20.92	23.86	0.00	0.00	1.92
		COEFFICIENT OF VARIATION	20.72%	8.56%	2.69%	22.11%	23.06%	0.00%	0.00%	10.37%
		5% LSD VARIETY MEANS (**NS=NS)	427.42	7.12	5.98	59.60	67.96	0.00	0.00	5.47

C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.48++	0.48++	0.27+	-0.25+	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.27+	0.38++	0.38++	0.38++	-0.34++	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.25+	-0.34++	-0.34++	1.00	-0.06	0.35++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.12	0.02	0.02	0.02	-0.35++	1.00	0.44++	1.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.53++	0.75++	0.61++	0.61++	-0.26+	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.32+	-0.09	-0.21	-0.10	-0.18	-0.13	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.56++	0.58++	0.39++	-0.13	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.46++	-0.23	0.09	-0.01	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 68 EXPERIMENT 53 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	HILL	0.00	154.00	35.75	0.00	1.00	41.2	17.7
13	IMPROVED PELICAN	0.00	99.50	58.60	0.00	1.25	43.9	17.8
12	DAVIS	0.00	99.50	29.43	0.00	1.00	41.1	20.8
15	COLUMBUS	0.00	107.00	31.38	0.00	1.00	44.9	18.0
11	COBB	0.00	126.00	35.90	0.00	1.00	39.5	19.5
16	ESSEX	0.00	162.50	17.48	0.00	1.00	42.6	19.5
14	FORREST	0.00	112.75	20.58	0.00	1.00	40.9	19.4
4	RANSON	0.00	146.75	26.03	0.00	1.75	41.3	21.4
9	WILLIAMS	0.00	110.25	21.60	0.00	1.25	43.1	18.7
1	CALLAND	0.00	134.00	17.88	0.00	2.50	44.1	17.8
7	CUTLER 71	0.00	99.50	21.15	0.00	1.00	44.0	18.0
8	BOSSIER	0.00	131.75	17.68	0.00	1.50	43.4	19.4
6	PICKETT 71	0.00	129.00	15.83	0.00	1.50	41.4	20.5
10	CLARK 63	0.00	118.50	19.13	0.00	1.50	42.5	18.9
2	WOODWORTH	0.00	161.25	17.60	0.00	1.25	42.3	18.4
3	BRAGG	0.00	121.75	12.98	0.00	2.00	42.6	18.0
STANDARD ERROR OF A VARIETY MEAN		0.00	125.88	24.93	0.00	1.34		
COEFFICIENT OF VARIATION		0.00%	8.94	5.06	0.00	0.25		
5% LSD VARIETY MEANS (*****=NS)		0.00	14.20%	40.61%	0.00%	37.93%		
		0.00	25.45	14.42	0.00	0.73		
C O R R E L A T I O N S (* - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.32+	0.56++	0.00	-0.46++		
DAYS TO FLOWER		0.00	-0.09	0.58++	0.00	-0.23		
DAYS TO MATURITY		0.00	-0.21	0.39++	0.00	0.09		
NODULE NUMBER 1		0.00	-0.10	-0.13	0.00	-0.01		
NODULE NUMBER 2		0.00	-0.18	0.10	0.00	-0.11		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	-0.06	0.68++	0.00	-0.22		
LODGING		0.00	0.00	0.00	0.00	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.13	0.00	-0.13		
PODS PER PLANT		0.00	-0.13	1.00	0.00	-0.21		
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00		
QUALITY OF SEED		0.00	-0.13	-0.21	0.00	1.00		

TABLE 69 EXPERIMENT 54 YEAR 1976

COUNTRY - ETHIOPIA
 ELEVATION - 1220 M
 LONGITUDE - 36 DEG. 24 MIN. E
 COOPERATORS - H.M. TEKLEMARIAM, TADESSE
 DATE PLANTED - JULY 2, 1976
 SOIL TYPE - SAND 14-34%, SILT 8-34%, CLAY 44-68%, PH 5.1-5.9
 FERTILIZER USED (KG/HA) - N 50.0, P 22.0

TABLE 69 EXPERIMENT 54 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6	PICKETT 71	0.00	0.00	10.50	16.50	0.00	—	—
12	DAVIS	0.00	0.00	9.00	19.00	0.00	45.0	21.8
14	FORREST	0.00	0.00	8.25	17.50	0.00	42.6	21.9
15	COLUMBUS	0.00	0.00	8.50	19.50	0.00	45.9	19.9
13	IMPROVED PELICAN	0.00	0.00	9.25	16.50	0.00	44.4	21.0
5	HILL	0.00	0.00	5.50	20.00	0.00	41.9	21.4
16	ESSEX	0.00	0.00	6.75	19.50	0.00	—	—
9	WILLIAMS	0.00	0.00	8.50	20.50	0.00	45.0	20.9
2	WOODWORTH	0.00	0.00	9.50	20.50	0.00	43.7	21.1
8	BOSSIER	0.00	0.00	8.75	20.00	0.00	—	—
11	COBB	0.00	0.00	7.25	18.50	0.00	42.8	21.7
7	CUTLER 71	0.00	0.00	11.00	18.50	0.00	44.9	20.3
4	RANSOM	0.00	0.00	9.25	22.25	0.00	44.9	22.3
10	CLARK 63	0.00	0.00	8.50	19.50	0.00	44.6	20.4
1	CALLAND	0.00	0.00	8.00	19.00	0.00	45.0	19.3
3	BRAGG	0.00	0.00	7.50	18.00	0.00	44.9	20.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS								
(+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 70 EXPERIMENT 56 YEAR 1976

REGION - AFRICA
 SITE - JIMMA
 LATITUDE - 7 DEG. 46 MIN. N
 COOPERATORS - M. SHEKOUR, E. ANDE
 DATE PLANTED - JUNE 9, 1976
 SOIL TYPE - SAND 6-75%, SILT 23-75%, CLAY 6-50%, PH 6-2
 FERTILIZER USED (KG/HA) - P 36.8
 AMOUNT OF MOISTURE - 1067 MM
 LOCAL VARIETY - KWANYKO

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER		NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
					NUMBER 1	NUMBER 2				
5	HILL	2207.52	61.00	130.00	125.25	122.50	0.00	0.00	50.75	1.50
11	COBB	2072.91	61.00	133.25	100.00	133.75	0.00	0.00	47.00	1.00
16	ESSEX	2031.24	51.00	124.25	190.25	153.75	0.00	0.00	42.25	1.50
13	IMPROVED PELICAN	1841.20	79.00	157.00	65.00	85.25	0.00	0.00	90.25	2.00
14	PORREST	1802.03	58.00	144.25	107.75	109.25	0.00	0.00	40.00	1.50
15	COLUMBUS	1711.18	39.00	120.25	210.50	171.25	0.00	0.00	39.25	1.75
12	DAVIS	1682.84	68.00	143.75	92.50	119.50	0.00	0.00	46.75	1.00
8	BOSSTIR	1654.50	51.00	119.00	143.50	121.00	0.00	0.00	38.25	1.00
4	RANSOM	1483.63	51.00	116.75	184.25	148.25	0.00	0.00	35.00	1.50
6	PICKETT 71	1371.94	51.00	120.25	131.75	130.25	0.00	0.00	35.00	1.75
9	WILLIAMS	1258.58	39.00	103.00	191.50	145.00	0.00	0.00	31.75	1.75
10	CLARK 63	1061.88	39.00	110.75	210.75	120.50	0.00	0.00	34.75	2.25
1	CALIFORNIA	1047.71	44.50	116.00	121.75	101.75	0.00	0.00	30.00	1.50
7	KWANYKO	996.03	39.00	119.50	117.50	109.75	0.00	0.00	36.75	1.75
3	BRAGG	898.51	61.00	123.50	166.25	120.00	0.00	0.00	37.00	2.25
2	WOODWORTH	827.67	39.00	98.00	157.00	148.75	0.00	0.00	28.75	
		GRAND MEAN	1496.84	51.97	123.72	144.72	127.53	0.00	0.00	41.47
		STANDARD ERROR OF A VARIETY MEAN	159.02	1.38	2.61	17.69	18.17	0.00	0.00	2.59
		COEFFICIENT OF VARIATION	21.25%	5.29%	4.22%	24.45%	28.50%	0.00%	0.00%	12.51%
		5% LSD VARIETY MEANS (*****=NS)	452.95	3.92	7.43	50.40	*****	0.00	0.00	7.39
CORRELATIONS (+ - PROB.=.05 +* - PROB.=.01)										
YIELD	KG/HA	1.00	0.45++	0.59++	-0.11	0.16	0.00	0.00	0.53++	-0.27+
DAYS TO FLOWER		0.45++	1.00	0.83++	-0.48++	-0.25+	0.00	0.00	0.73++	-0.16
DAYS TO MATURITY		0.59++	0.83++	1.00	-0.51++	-0.22	0.00	0.00	0.77++	-0.12
NODULE NUMBER 1		-0.11	-0.48++	-0.51++	1.00	0.63++	0.00	0.00	-0.40++	0.18
NODULE NUMBER 2		0.16	-0.25+	-0.22	0.63++	1.00	0.00	0.00	-0.21	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.53++	0.73++	0.77++	-0.40++	-0.21	0.00	0.00	1.00	-0.04
LOGGING		-0.27+	-0.16	-0.12	0.18	0.00	0.00	0.00	0.04	1.00
SHATTER		-0.32+	-0.21	-0.10	-0.04	-0.15	0.00	0.00	0.07	-0.15
PLANTS HARVEST		-0.26+	-0.14	-0.32+	0.19	0.18	0.00	0.00	-0.34++	-0.06
PODS PER PLANT		0.80++	0.60++	0.69++	-0.26+	-0.07	0.00	0.00	0.76++	-0.14
100 SEED WEIGHT		0.20	-0.01	0.04	0.21	0.23	0.00	0.00	-0.07	-0.03
QUALITY OF SEED		-0.24	0.16	0.16	-0.08	-0.17	0.00	0.00	0.18	0.34++

TABLE 70 EXPERIMENT 56 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	HILL	1.00	180.25	27.50	17.50	1.00	41.1	18.5
11	COBB	1.25	181.75	28.50	51.00	1.00	42.9	17.9
16	ESSEX	1.25	183.75	23.50	17.75	1.50	43.7	18.8
13	IMPROVED PELICAN	1.75	171.75	32.75	45.00	2.00	46.0	17.2
14	FORREST	1.00	174.50	22.50	15.75	1.50	41.7	18.3
15	COLUMBUS	1.25	179.75	22.00	62.50	1.00	46.7	18.6
12	DAVIS	1.00	193.25	18.75	52.50	1.25	42.5	18.7
8	BOSSIER	1.00	178.75	19.25	19.50	1.00	44.4	19.1
4	RANSOM	1.25	188.00	15.75	67.00	1.50	44.0	20.5
6	PICKETT '71	1.00	176.25	16.75	18.25	1.25	43.6	18.4
9	WILLIAMS	2.25	190.75	15.50	19.75	1.00	45.1	17.5
10	CLARK 63	1.25	185.00	14.50	53.25	1.50	45.6	18.0
1	CALLAND	2.00	188.75	12.75	21.25	1.75	45.7	18.1
7	KWANYKYO	2.25	180.00	13.50	20.25	1.75	46.0	15.8
3	BRAGG	1.25	192.25	13.00	20.25	2.00	44.9	16.7
2	WOODWORTH	1.00	186.00	11.25	57.75	1.00	45.2	17.4
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% 1ST VARIETY MEANS (*****=NS)								
GRAND MEAN								
0.18								
26.47%								
0.51								
CORRELATIONS								
(+ - PROB=.05 + + - PROB=.01)								
YIELD	KG/HA	-0.32+	-0.26+	0.80++	0.20	-0.24		
DAYS TO FLOWER		-0.21	-0.14	0.60++	-0.01	0.16		
DAYS TO MATURITY		-0.10	-0.32++	0.69++	0.04	0.16		
NODULE NUMBER 1		-0.04	0.19	-0.26+	0.21	-0.08		
NODULE NUMBER 2		-0.15	0.18	-0.07	0.23	-0.17		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.07	-0.34++	0.76++	0.07	0.18		
LODGING		0.15	-0.06	-0.14	-0.03	0.34++		
SHATTER		1.00	0.05	-0.11	-0.22	0.25		
PLANTS HARVEST		0.05	1.00	-0.38++	-0.14	0.12		
PODS PER PLANT		-0.11	-0.38++	1.00	-0.04	-0.03		
100 SEED WEIGHT		-0.22	-0.14	0.04	1.00	-0.18		
QUALITY OF SEED		0.25	0.12	-0.03	-0.18	1.00		

TABLE 71 EXPERIMENT 52 YEAR 1976

REGION - AFRICA	COUNTRY - ETHIOPIA
SITE - LEKU	ELEVATION - 1820 M
LATITUDE - 6 DEG. 45 MIN. N	LONGITUDE - 38 DEG. 20 MIN. E
COOPERATORS - D. MITIKU, T. LEGATO	DATE HARVESTED - DECEMBER, 1976
DATE PLANTED - JUNE 30, 1976	
SOIL TYPE - SANDY SILT	
FERTILIZER USED (KG/HA) - N 27.0, P 69.0	

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/H.A	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8 BOSSIER	3121.46	72-75	152.00	0.00	0.00	0.00	0.00	0.00	45.75	1.00
16 ESSEX	2725.54	70-50	149.75	0.00	0.00	0.00	0.00	0.00	41.50	0.00
5 HILL	2546.34	76-75	152.00	0.00	0.00	0.00	0.00	0.00	46.50	0.50
14 FORREST	2450.49	73-75	153.25	0.00	0.00	0.00	0.00	0.00	44.50	1.00
9 WILLIAMS	2437.99	50-00	132.75	0.00	0.00	0.00	0.00	0.00	40.25	0.75
12 DAVIS	2433.82	96.00	163.25	0.00	0.00	0.00	0.00	0.00	56.50	1.00
6 PICKETT 71	2383.81	75-75	152.75	0.00	0.00	0.00	0.00	0.00	37.00	1.00
4 RANSOM	2267.12	57.50	154.25	0.00	0.00	0.00	0.00	0.00	34.25	0.00
15 COLUMBUS	2162.93	49.00	157.75	0.00	0.00	0.00	0.00	0.00	55.25	0.50
11 COBB	1975.39	91-00	162.25	0.00	0.00	0.00	0.00	0.00	52.50	0.50
1 CALLAND	1821.20	50.50	153.50	0.00	0.00	0.00	0.00	0.00	39.25	0.25
2 WOODWORTH	1775.35	50-25	150.50	0.00	0.00	0.00	0.00	0.00	38.75	0.25
7 CUTLER 71	1562.81	57.25	150.00	0.00	0.00	0.00	0.00	0.00	42.50	0.50
13 IMPROVED PELICAN	1391.94	111.50	172.25	0.00	0.00	0.00	0.00	0.00	11.50	3.00
10 CLARK 63	1350.27	49.25	143.00	0.00	0.00	0.00	0.00	0.00	43.00	0.50
3 BRAGG	1241.91	72.50	149.50	0.00	0.00	0.00	0.00	0.00	39.25	0.25
GRAND MEAN	2103.02	68-97	153.05	0.00	0.00	0.00	0.00	0.00	48.02	0.69
STANDARD ERROR OF A VARIETY MEAN	224.56	2-39	3.27	0.00	0.00	0.00	0.00	0.00	2.06	0.23
COEFFICIENT OF VARIATION	21.36%	6.93%	4.27%	0.00%	0.00%	0.00%	0.00%	0.00%	8.56%	66.39%
5% LSD VARIETY MEANS (*******=NS)	639.63	6.81	9.32	0.00	0.00	0.00	0.00	0.00	5.86	0.65
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/H.A	1.00	-0.02	-0.05	0.00	0.00	0.00	0.00	0.00	-0.14	-0.01
DAYS TO FLOWER	0.02	1.00	0.64++	0.00	0.00	0.00	0.00	0.00	0.65++	0.59++
DAYS TO MATURITY	-0.05	0.61++	1.00	0.00	0.00	0.00	0.00	0.00	0.60++	0.32+
NODULE NUMBER 1	0.00	0.00	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	-0.14	0.65++	0.60++	0.00	0.00	0.00	0.00	0.00	1.00	0.77++
LODGING	-0.01	0.59++	0.32+	0.00	0.00	0.00	0.00	0.00	0.77++	1.00
SHATTER	-0.30+	-0.20	-0.11	0.00	0.00	0.00	0.00	0.00	-0.14	-0.19
HARVEST	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	-0.03	-0.17
PLANTS PER PLANT	0.08	0.73++	0.54++	0.00	0.00	0.00	0.00	0.00	0.85++	0.75++
100 SEED WEIGHT	0.11	-0.30+	-0.30+	0.00	0.00	0.00	0.00	0.00	-0.41++	-0.35++
QUALITY OF SEED	-0.21	0.13	0.32+	0.00	0.00	0.00	0.00	0.00	0.00	0.14

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TABLE 71

EXPERIMENT 52

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.00	183.75	34.45	18.58	1.75	44.3	19.4
16	ESSEX	1.75	213.75	30.40	17.05	1.00	42.1	23.2
5	HILL	1.50	250.25	30.58	14.45	1.75	42.8	18.5
14	FORREST	1.25	219.00	27.73	15.83	1.75	39.5	20.6
9	WILLIAMS	2.00	192.00	20.88	17.35	1.75	44.5	19.0
12	DAVIS	1.75	216.25	35.23	15.50	1.75	42.8	20.4
6	PICKETT 71	2.00	202.75	28.48	16.25	1.50	40.6	21.6
4	RANSOM	2.00	192.00	25.58	17.13	1.50	42.0	21.6
15	COLUMBUS	1.75	195.50	32.08	15.53	1.50	42.9	19.9
11	COBB	1.75	194.25	38.83	13.85	2.50	40.5	21.2
1	CALLAND	2.50	212.00	20.20	15.08	2.50	43.8	18.4
2	WOODWORTH	2.00	222.00	16.78	15.88	1.25	43.9	18.6
7	CUTLER 71	2.25	211.25	20.28	17.83	2.00	43.9	18.8
13	IMPROVED PELICAN	1.75	197.25	69.02	12.43	2.00	46.2	18.5
10	CLARK 63	1.75	198.75	18.73	15.93	1.75	43.8	19.1
3	BRAGG	2.00	197.25	15.63	21.70	2.25	43.8	18.0
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (**NS=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
PLANT HEIGHT	-0.30+	0.06	0.08	0.11	-0.21			
PLANT DAYS TO Maturity	-0.20	0.00	0.73++	-0.30+	0.13			
NODULE NUMBER 1	-0.11	0.02	0.54++	-0.30+	0.32+			
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00			
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00			
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT LODGING	-0.14	-0.03	0.85++	-0.41++	0.14			
SHATTER	-0.19	-0.17	0.75++	-0.35++	0.05			
PLANTS HARVEST	-0.16	-0.16	-0.24	0.00	0.07			
PODS PER PLANT	-0.16	1.00	-0.21	-0.10	0.08			
100 SEED WEIGHT	0.00	-0.10	-0.47++	1.00	0.01			
QUALITY OF SEED	0.07	0.08	-0.00	0.01	1.00			

TABLE 72 EXPERIMENT 326 YEAR 1976

REGION - AFRICA
 SITE - NTOUM
 LATITUDE - 0 DEG. 20 MIN. N
 COOPERATORS - J. VAN AERONGEN, G. VAN DE PLAS
 DATE PLANTED - SEPTEMBER 30, 1976
 SOIL TYPE - SAND 64.5%, SILT 21.5%, CLAY 10.5%, PH 6.3
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 1177 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	Maturity	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	Lodging
1	JUPITER	2158.76	34.25	102.00	83.25	244.00	0.61	2.50	87.25	3.00
6	DAVIS	1967.06	30.50	95.00	82.00	166.00	0.44	1.93	45.75	1.75
7	IMPROVED PELICAN	1683.67	36.75	97.00	71.00	162.25	0.35	1.95	72.00	2.75
8	PORREST	1662.83	30.75	90.00	100.50	205.50	0.60	2.58	44.75	1.00
3	WILLIAMS	1475.29	31.75	94.00	122.25	278.00	0.96	3.78	50.75	1.75
4	CLARK 63	1425.28	28.25	92.00	112.00	268.00	0.84	3.25	55.75	1.75
2	BOSSIER	1387.78	27.25	94.00	114.00	223.25	0.79	2.82	45.25	1.00
5	COBB	1358.60	29.50	107.00	81.75	214.50	0.50	2.85	48.00	1.25
GRAND MEAN		1639.91	31.13	96.38	95.97	220.19	0.64	2.71	56.19	1.78
STANDARD ERROR OF A VARIETY MEAN		209.09	0.24	0.00	18.59	25.35	0.11	0.41	2.06	0.22
COEFFICIENT OF VARIATION		25.50%	1.53%	0.00%	38.75%	23.03%	33.44%	30.02%	7.32%	24.21%
5% LSD VARIETY MEANS (*****=NS)		0.70	0.00	*****	74.57	0.31	*****	6.05	6.05	0.63
CORRELATIONS (* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.32	0.06	0.01	-0.17	0.04	-0.11	0.39+	0.26
DAYS TO FLOWER		0.32	1.00	0.22	-0.30	-0.17	-0.34	-0.27	0.70++	0.70++
DAYS TO Maturity		0.06	0.22	1.00	-0.28	-0.06	-0.28	-0.09	0.26	0.26
NODULE NUMBER 1		0.01	-0.30	-0.28	1.00	0.28	0.66++	0.21	-0.16	-0.16
NODULE NUMBER 2		-0.17	-0.17	-0.06	0.28	1.00	0.50++	0.69++	-0.14	-0.14
NODULE WEIGHT 1		0.04	-0.34	-0.28	0.66++	0.50++	1.00	0.62++	-0.07	-0.19
NODULE WEIGHT 2		-0.11	-0.27	-0.09	0.21	0.69++	0.62++	1.00	-0.17	-0.35+
PLANT HEIGHT		0.39+	0.70++	0.36+	-0.10	0.02	-0.07	-0.17	1.00	0.82++
Lodging		0.26	0.70++	0.26	-0.16	-0.14	-0.19	-0.35+	1.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.19	-0.12	-0.17	0.29	0.34	0.17	0.14	0.06	0.08
PODS PER PLANT		0.47++	0.71++	0.39+	-0.18	-0.19	-0.13	-0.11	-0.70++	-0.60++
100 SEED WEIGHT		0.18	0.01	0.08	0.14	0.49++	0.38+	0.06	0.09	0.09
QUALITY OF SEED		-0.04	0.15	0.30	-0.32	-0.34	-0.33	-0.25	0.17	0.31

TABLE 72 EXPERIMENT 326 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1 JUPITER	0.00	169.00	45.75	23.25	3.00	46.1	28.9
6 DAVIS	0.00	182.25	25.75	23.25	3.75	44.4	27.4
7 IMPROVED PELICAN	0.00	141.25	42.00	19.25	3.50	47.5	26.9
8 FORREST	0.00	144.25	26.75	19.50	2.50	43.9	26.6
3 WILLIAMS	0.00	192.50	23.75	25.00	2.25	46.0	28.5
4 CLARK 63	0.00	192.75	19.75	21.50	3.00	47.3	25.2
2 BOSSIER	0.00	143.75	24.75	20.75	2.50	47.0	25.6
5 COBB	0.00	148.25	27.75	21.00	3.50	40.6	30.8
STANDARD ERROR OF A VARIETY MEAN	0.00	164.25	29.53	21.69	3.00		
COEFFICIENT OF VARIATION	0.00%	10.43	3.24	0.61	0.29		
5% LSD VARIETY MEANS (*****=NS)	0.00	12.70%	21.94%	5.64%	19.59%		
30.66	9.53	1.80	0.86				
C O R R E L A T I O N S		(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)	
YIELD KG/HA	0.00	0.19	0.47++	0.18	-0.04		
DAYS TO FLOWER	0.00	-0.12	0.71++	0.01	0.15		
DAYS TO MATURITY	0.00	-0.17	0.39+	0.08	0.30		
NODULE NUMBER 1	0.00	0.29	-0.18	0.14	-0.32		
NODULE NUMBER 2	0.00	0.34	-0.19	0.49++	-0.34		
NODULE WEIGHT 1	0.00	0.17	-0.13	0.38+	-0.33		
NODULE WEIGHT 2	0.00	0.14	-0.11	0.35+	-0.25		
PLANT HEIGHT	0.00	0.06	0.70++	0.06	0.17		
LODGING	0.00	0.08	0.60++	0.09	0.31		
SHATTER	1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST	0.00	1.00	-0.35+	0.58++	-0.14		
PODS PER PLANT	0.00	-0.35+	1.00	-0.07	0.34		
100 SEED WEIGHT	0.00	0.58++	-0.07	1.00	-0.17		
QUALITY OF SEED	0.00	-0.14	0.34	-0.17	1.00		

TABLE 73 **EXPERIMENT 325** **YEAR 1976**

REGION - AFRICA	COUNTRY - GABON
SITE - NTOUM	ELEVATION - 18 M
LATITUDE - 0 DEG.	LONGITUDE - 9 DEG. 45 MIN. E
COOPERATORS - J. VAN AMERONGEN, G.	VAN DE PLAS
DATE PLANTED - MARCH 10, 1977	DATE HARVESTED - JUNE, 1977
SOIL TYPE - SAND 22.0%, SILT 63.5%, CLAY 14.5%, PH 6.4	
FERTILIZER USED (KG/HA) - 25.0, P 25.0, K 25.0	
AMOUNT OF MOISTURE - 490 MM	

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
9	JUPITER	1900.38	29-25	98.00	0.00	132-25	0.00	1-38	68-50	0.00
8	TGM 256-1-B	1779.52	33-50	90.00	0.00	112-50	0.00	1-28	68-75	0.00
5	TGM 294-4-2371	1758.68	37-25	97-75	0.00	160-75	0.00	1-83	66-50	0.00
3	TGM 255-2-4341	1742.01	29-50	88-75	0.00	234-50	0.00	1-93	58-50	0.00
7	TGX 13-3-2644	1704.51	35-50	97-75	0.00	184-75	0.00	2-25	71-50	0.00
14	DAVIS	1629.49	28-50	98-25	0.00	122-00	0.00	1-45	43-75	0.00
2	TGM 210-1-2363	1612.82	31-25	89-25	0.00	107-25	0.00	1-15	57-25	0.00
1	TGM 220-1-2205	1571.15	36-75	101-00	0.00	191-00	0.00	2-05	51-00	0.00
15	IMPROVED PELICAN	1512.80	31-50	98-50	0.00	138-50	0.00	1-08	55-00	0.00
16	FORREST	1446.12	29-00	86-00	0.00	95-50	0.00	1-20	43-25	0.00
11	WILLIAMS	1441.95	26-50	87-75	0.00	176-75	0.00	1-65	47-00	0.00
13	COBB	1433.62	26-50	98-00	0.00	99-75	0.00	1-20	45-00	0.00
6	TGX 66-5100	1425.28	30-75	87-50	0.00	36-25	0.00	0-75	70-00	0.00
12	CLARK 63	1312.76	26-75	86-25	0.00	238-00	0.00	2-08	48-75	0.00
4	TGM 249-4-B	1204.41	31-00	101-25	0.00	178-50	0.00	1-35	55-50	0.00
10	BOSSIER	1058.54	26-00	90-25	0.00	198-75	0.00	2-48	42-50	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=-.05 ++ - PROB=.01)										
YIELD KG/HA	1.00	0-18	0-23	0.00	0-14	0-00	0-00	0-03	0-50++	0.00
DAYS TO FLOWER	0-18	1-00	0-34++	0-00	-0-10	0-00	0-00	0-00	0-42++	0.00
DAYS TO MATURITY	0-23	0-34++	1-00	0-00	0-07	0-00	0-05	0-15	0-00	0.00
MODULE NUMBER 1	0-00	0-00	0-00	1-00	0-00	0-00	0-00	0-00	0-04	0.00
MODULE NUMBER 2	0-14	-0-10	0-07	0-00	1-00	0-00	0-00	0-00	-0-73++	0.00
MODULE WEIGHT 1	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0.00
MODULE WEIGHT 2	0-03	0-00	0-05	0-00	0-73++	0-00	0-00	-0-03	0-00	0.00
PLANT HEIGHT	0-50++	0-42++	0-15	0-00	-0-04	0-00	-0-03	1-00	0-00	0.00
LOGGING	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0.00
SHATTER	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0.00
HARVEST	0-30++	0-26++	0-00	0-00	-0-14	0-00	-0-16	-0-26+	0-00	0.00
PLANTS PER PLANT	0-13	-0-11	0-18	0-00	0-13	0-00	0-00	0-13	0-00	0.00
PODS PER 100 SEED	0-04	-0-39++	0-10	0-00	0-02	0-00	0-00	-0-14	0-00	0.00
QUALITY OF SEED	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0.00

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TABLE 73 EXPERIMENT 325 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	JUPITER	0.00	165.00	20.33	17.45	0.00	42.0	24.7
8	TGM 256-1-B	0.00	242.75	19.58	11.78	0.00	43.9	20.1
5	TGM 294-4-2371	0.00	206.00	16.53	16.20	0.00	42.6	20.5
3	TGM 255-2-4341	0.00	182.25	27.53	12.90	0.00	42.6	24.0
7	TGX 13-3-2644	0.00	176.25	14.38	16.23	0.00	40.6	24.0
14	DAVIS	0.00	177.25	18.60	17.43	0.00	43.5	22.9
2	TGM 210-1-2363	0.00	203.75	18.10	15.33	0.00	42.4	23.2
1	TGM 220-1-2205	0.00	164.00	21.25	13.05	0.00	42.4	22.2
15	IMPROVED PELICAN	0.00	152.50	27.90	12.48	0.00	41.5	24.4
16	FORREST	0.00	166.75	23.88	14.33	0.00	41.0	22.2
11	WILLIAMS	0.00	177.75	11.28	18.18	0.00	43.3	23.5
13	COBB	0.00	147.00	19.70	17.53	0.00	39.6	25.2
6	TGX 66-5100	0.00	193.25	20.28	14.40	0.00	41.9	21.1
12	CLARK 63	0.00	192.50	13.35	16.55	0.00	40.6	26.5
4	TGM 249-4-B	0.00	60.00	27.35	14.40	0.00	41.8	24.4
1C	BOSSIER	0.00	114.75	18.50	15.95	0.00	43.3	23.2
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (**=***=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
	0.00	0.30*	0.13	0.04	0.00			
	DAYS TO FLOWER	0.00	0.26*	-0.11	-0.39++	0.00		
	DAYS TO MATURITY	0.00	-0.32++	0.18	0.10	0.00		
	NODEL NUMBER 1	0.00	0.00	0.00	0.00	0.00		
	NODEL NUMBER 2	0.00	-0.14	0.13	0.02	0.00		
	NODEL WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	NODEL WEIGHT 2	0.00	-0.16	0.00	0.15	0.00		
	PLANT HEIGHT	0.00	0.26*	0.13	-0.14	0.00		
	LODGING	0.00	0.00	0.00	0.00	0.00		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS HARVEST	0.00	1.00	-0.46++	-0.15	0.00		
	PODS PER PLANT	0.00	-0.46++	1.00	-0.22	0.00		
	100 SEED WEIGHT	0.00	-0.15	-0.22	1.00	0.00		
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 74 EXPERIMENT 0 YEAR 1976

REGION - AFRICA
 SITE - KUMASI
 LATITUDE - 6 DEG. 41 MIN. N
 COOPERATOR - H. MERCER-QUARSHIE
 DATE PLANTED - APRIL 29, 1976
 SOIL TYPE - SILT, PH 6.0
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 614 MM
 LOCAL VARIETY - CES 407

		COUNTRY - GHANA										
		ELEVATION - 270 M										
		LONGITUDE - 1 DEG. 42 MIN. W										
		DATE HARVESTED - AUGUST, 1976										
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING		
14	DAVIS	2743.88	30.00	97.00	67.50	0.00	0.35	0.00	24.25	1.00		
11	WILLIAMS	2695.96	26.00	85.75	65.00	0.00	0.34	0.00	54.00	1.25		
1	TGM 220-1-2205	2676.79	43.00	102.50	87.50	0.00	0.41	0.00	49.25	4.75		
8	TGM 256-1-B	2473.83	39.00	99.00	52.50	0.00	0.25	0.00	70.00	3.75		
2	TGM 210-1-2363	2421.32	36.00	95.00	17.25	0.00	0.08	0.00	62.50	3.00		
3	TGM 255-2-4341	2367.97	32.00	103.25	75.00	0.00	0.25	0.00	88.25	3.25		
6	TGX 66-5100	2352.14	40.00	97.00	19.00	0.00	0.14	0.00	90.00	3.75		
12	CLARK 63	2326.30	26.00	96.75	82.50	0.00	0.38	0.00	56.25	1.75		
15	IMPROVED PELICAN	2297.54	37.00	99.00	17.25	0.00	0.04	0.00	104.75	2.75		
7	TGX 13-3-2644	2260.45	35.00	104.00	35.00	0.00	0.15	0.00	86.00	3.75		
5	TGM 294-4-2371	2251.70	43.75	82.50	0.00	0.35	0.00	0.00	66.75	1.75		
4	TGM 249-4-B	2219.19	35.00	101.50	19.75	0.00	0.04	0.00	89.00	4.00		
10	BOSSIER	2080.00	26.00	98.00	44.25	0.00	0.18	0.00	25.75	1.00		
13	COBB	2068.75	30.00	103.00	30.00	0.00	0.19	0.00	33.25	1.00		
16	CES 407	1904.55	42.00	113.75	63.25	0.00	0.35	0.00	103.75	3.25		
9	JUPITER	1757.85	47.00	114.25	45.00	0.00	0.22	0.00	55.50	2.75		
		GRAND MEAN	2306.14	35.48	100.41	50.20	0.00	0.23	0.00	66.20	2.67	
		VARIETY MEAN	173.37	0.06	1.13	13.24	0.00	0.08	0.00	3.73	0.27	
		COEFFICIENT OF VARIATION	15.04%	0.35%	2.26%	52.4%	0.00%	66.38%	0.00%	1.125%	20.27%	
		5% LSD VARIETY MEANS (***)=NS	493.83	0.18	3.23	37.71	0.00	0.22	0.00	10.61	0.77	
		CORRELATIONS										
		(+ - PROB=-.05	++ - PROB=-.01)									
		YIELD KG/HA	1.00	-0.20	-0.43++	0.10	0.00	0.13	0.00	-0.12	0.17	
		DAYS TO FLOWER	-0.20	1.00	0.55++	-0.01	0.00	-0.00	0.00	0.40++	0.56++	
		DAYS TO MATURITY	-0.43++	0.55++	1.00	-0.02	0.00	-0.00	0.00	0.26+	0.37++	
		NODULE NUMBER 1	0.-10	-0.-01	-0.-02	1.00	0.00	0.83++	0.00	-0.18	-0.13	
		NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
		NODULE WEIGHT 1	0.-13	-0.-00	-0.-00	0.-83++	0.00	1.00	0.00	-0.25+	-0.14	
		NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
		PLANT HEIGHT	-0.-12	0.40++	0.26+	-0.-18	0.00	-0.25+	0.00	1.00	0.60++	
		LODGING	0.-17	0.56++	0.37++	-0.-13	0.00	-0.14	0.00	0.60++	1.00	
		SHATTER	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		PLANTS HARVEST	0.-32++	-0.-27+	-0.-55++	-0.-05	0.00	-0.09	0.00	-0.06	0.05	
		PODS PER PLANT	-0.-11	0.56++	0.47++	0.-02	0.00	-0.04	0.00	0.62++	0.50++	
		100 SEED WEIGHT	-0.-01	-0.-43++	-0.-05	0.-06	0.00	-0.17	0.00	-0.50++	-0.55++	
		QUALITY OF SEED	-0.-20	0.20	0.09	0.07	0.00	0.10	0.00	-0.42++	-0.17	

TABLE 74 EXPERIMENT 0 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	1.00	157.50	44.00	21.25	1.50	43.2	21.3
11	WILLIAMS	1.00	140.00	45.00	21.75	1.50	42.6	23.3
1	TGM 220-1-2205	1.00	124.50	83.00	15.25	2.00	45.0	21.9
8	TGM 256-1-B	1.00	171.25	63.75	15.50	1.50	46.4	18.8
2	TGM 210-1-2363	1.00	171.50	66.75	17.00	2.25	43.8	20.2
3	TGM 255-2-4341	1.00	170.00	77.00	14.25	1.25	44.3	20.3
6	TGX 66-5100	1.00	168.50	58.25	16.50	1.50	45.1	19.6
12	CLARK 63	1.00	163.00	37.75	20.50	2.50	43.3	22.9
15	IMPROVED PELICAN	1.00	119.00	90.50	15.00	1.00	43.4	21.6
7	TGX 13-3-2644	1.00	170.25	55.00	18.75	1.25	43.3	21.7
5	TGM 294-4-2371	1.00	176.50	57.50	17.00	1.00	47.4	17.8
4	TGM 249-4-B	1.00	146.75	72.75	17.25	1.25	42.9	22.9
10	BOSSIER	1.00	135.00	36.25	20.50	2.00	44.4	22.6
13	COBB	1.00	119.50	43.50	23.00	2.50	41.2	23.8
16	CES 407	1.00	60.00	101.50	19.50	1.50	44.8	19.6
9	JUPITER	1.00	76.50	72.50	19.75	2.00	44.1	21.5
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA	0.00	0.32++	-0.11	-0.01	-0.20			
DAYS TO FLOWER	0.00	-0.27+	0.56++	-0.43++	-0.20			
DAY'S TO MATURITY	0.00	-0.55++	0.47++	-0.05	0.09			
NODULE NUMBER 1	0.00	-0.05	0.02	0.06	0.07			
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00			
NODULE WEIGHT 1	0.00	-0.09	-0.04	0.17	0.10			
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT HEIGHT	0.00	-0.06	0.62++	-0.50++	-0.42++			
LODGING	0.00	0.05	0.50++	-0.55++	-0.17			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.35++	-0.27+	-0.18			
PODS PER PLANT	0.00	-0.35++	1.00	-0.43++	-0.14			
100 SEED WEIGHT	0.00	-0.27+	-0.43++	1.00	0.33++			
QUALITY OF SEED	0.00	-0.18	-0.14	0.33++	1.00			

TABLE 75 EXPERIMENT 234

YEAR 1976

REGION - AFRICA
 SITE - LEGON FARM
 LATITUDE - 5 DEG.
 COOPERATOR - R.B. DADSON
 DATE PLANTED - MAY 26, 1976
 SOIL PH 6.2
 AMOUNT OF MOISTURE - 438 MM
 NUMBER OF IRRIGATIONS - 9

COUNTRY - GHANA
 ELEVATION - 60 M
 LONGITUDE - 0 DEG. 11 MIN. W
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	IMPROVED PELICAN	1772.02	21.25	80.00	80.75	112.75	0.34	0.61	45.43	2.25
7	TGX 13-3-2644	1703.26	53.75	111.00	66.00	114.75	0.34	0.80	36.60	1.00
9	JUPITER	1603.24	48.25	98.00	171.50	157.50	0.64	0.88	49.93	2.50
3	TGM 255-2-4341	1391.94	42.25	101.00	67.25	92.50	0.32	0.61	32.13	2.00
4	TGM 249-4-B	1381.53	40.25	98.00	104.00	109.50	0.53	0.84	32.25	2.75
11	HILLIAMS	1347.35	21.00	76.00	118.75	149.00	0.37	0.90	34.08	2.50
16	FORREST	1339.85	12.75	76.00	92.25	106.50	0.31	0.76	29.48	1.75
12	CLARK 63	1236.08	15.50	76.00	133.00	154.00	0.48	1.18	34.68	1.75
13	COBB	1228.16	15.50	62.75	110.00	107.50	0.41	0.71	27.20	1.50
1	TGM 220-1-2205	1182.74	50.50	111.00	97.00	107.25	0.39	0.67	39.48	1.75
14	DAVIS	1171.90	13.50	76.00	101.25	132.25	0.30	0.76	31.28	2.25
5	TGM 294-4-2371	1168.98	31.00	111.00	72.75	104.00	0.31	0.64	39.68	1.75
10	BOSSIER	1156.48	14.75	76.00	121.75	129.75	0.48	0.99	22.55	1.25
8	TGM 256-1-B	1145.23	33.75	98.00	68.75	123.25	0.33	0.59	46.15	2.25
6	TGX 66-5100	1143.56	31.75	106.00	96.25	107.50	0.43	0.69	45.23	1.50
2	TGM 210-1-2363	1094.80	45.00	96.00	63.50	98.25	0.41	0.67	39.93	2.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
STANDARD COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****NS)										
(* - PROB=.05 ** - PROB=.01)										
C O R R E L A T I O N S										
YIELD	KG/HA	1.00	0.16	-0.01	0.12	0.17	0.03	0.08	0.23	0.09
DAYS TO FLOWER	0.16	1.00	0.43++	0.02	0.03	0.20	-0.07	0.33++	-0.07	
DAYS TO MATURITY	-0.01	0.43++	1.00	-0.24	-0.16	0.04	-0.23	0.46++	-0.01	
NODULE NUMBER 1	0.12	0.02	-0.24	1.00	0.58++	0.64++	0.52++	0.01	0.01	
NODULE NUMBER 2	0.17	0.03	-0.16	0.58++	1.00	0.47++	0.71++	0.16	-0.05	
NODULE WEIGHT 1	0.03	0.20	0.04	0.64++	0.47++	1.00	0.52++	0.06	0.02	
NODULE WEIGHT 2	0.08	-0.07	-0.23	0.52++	0.71++	0.52++	1.00	-0.15	-0.16	
PLANT HEIGHT	0.23	0.33++	0.46++	0.01	0.16	0.06	-0.15	1.00	0.26+	
LODGING	0.09	-0.07	-0.01	0.01	-0.05	0.02	-0.16	0.26+	1.00	
SHATTER	-0.13	-0.13	-0.08	-0.23	-0.12	-0.02	-0.02	-0.04	-0.15	
PLANTS HARVEST	-0.10	-0.09	-0.16	-0.21	-0.06	-0.26+	-0.16	-0.17	-0.17	
PODS PER PLANT	0.44++	0.16	0.03	-0.19	0.20	0.22	0.12	0.26+	-0.00	
100 SEED WEIGHT	0.04	-0.29+	-0.70++	0.48++	0.40++	0.32+	-0.33++	-0.06	-0.06	
QUALITY OF SEED	0.10	-0.09	-0.12	0.12	0.18	0.13	-0.07	-0.01	-0.01	

TABLE 75 EXPERIMENT 234 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	IMPROVED PELICAN	1.00	143.50	42.17	1.75
	TGX 13-3-2644	1.00	161.25	27.80	1.23
9	JUPITER	1.00	132.25	38.20	16.98
3	TGM 255-2-4341	1.25	151.25	27.25	12.10
4	TGM 249-4-B	1.00	140.00	25.80	13.45
11	WILLIAMS	1.00	181.50	17.63	20.10
16	FORREST	1.00	170.75	29.65	15.48
12	CLARK 63	1.00	154.75	28.45	17.25
13	COBB	1.25	149.00	26.40	19.13
1	TGM 220-1-2205	1.25	128.75	30.53	12.50
14	DAVIS	1.00	190.50	14.05	17.58
5	TGM 294-4-2371	1.00	164.00	22.70	11.00
10	BOSSIER	1.25	150.75	29.85	17.18
8	TGM 256-1-B	1.25	172.50	23.58	13.33
6	TGX 66-5-100	1.25	153.00	16.18	13.78
2	TGM 210-1-2363	1.25	171.75	24.15	12.68
	GRAND MEAN	1.11	157.22	26.52	15.00
	STANDARD ERROR OF A VARIETY MEAN	0.17	14.14	2.76	0.94
	CORPPICIENT OF VARIATION	30.65%	17.99%	20.79%	12.47%
	5% LSD VARIETY MEANS (*****=NS)	*****	*****	7.85	42.02%
	*****	*****	*****	2.66	0.90
	CORRELATIONS		(+- PROB=.05	++ - PROB=.01)	
	YIELD KG/HA	-0.13	-0.10	0.44++	0.04
	DAYS TO FLOWER	-0.13	-0.09	0.16	0.10
	DAYS TO MATURITY	-0.08	-0.16	0.03	-0.29+
	ODULE NUMBER 1	-0.23	-0.21	-0.19	-0.12
	ODULE NUMBER 2	-0.12	-0.06	0.20	0.20
	ODULE WEIGHT 1	-0.02	-0.26+	0.22	0.12
	ODULE WEIGHT 2	-0.02	-0.16	0.12	0.18
	PLANT HEIGHT	-0.04	-0.17	0.26+	0.32+
	LODGING	0.15	-0.17	-0.00	-0.07
	SHATTER	1.00	-0.05	-0.19	-0.06
	PLANTS HARVEST	-0.05	1.00	-0.41++	-0.17
	PODS PER PLANT	-0.19	-0.41++	1.00	-0.02
	100 SEED WEIGHT	-0.03	0.14	-0.02	0.00
	QUALITY OF SEED	-0.18	-0.17	0.42++	1.00

TABLE 76 EXPERIMENT 996 YEAR 1976

REGION - AFRICA
 SITE - ABIDJAN
 LATITUDE - 5 DEG. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - MAY 18, 1976
 SOIL TYPE - SAND, PH 5.3
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 1864 MM

COUNTRY - IVORY COAST
 ELEVATION - 0 M
 LONGITUDE - 4 DEG. W
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	PROB=.05	PROB=.01
8	TGM 256-1-B	1192.08	40.25	95.75	0.00	0.00	0.00	0.00	40.50	1.00	0.00	0.00
6	TGX 66-5100	687.08	39.25	88.50	0.00	0.00	0.00	0.00	45.25	1.00	0.00	0.00
7	TGX 13-3-2644	376.67	37.00	105.50	0.00	0.00	0.00	0.00	51.25	1.00	0.00	0.00
5	TGM 294-4-2371	262.08	54.00	100.25	0.00	0.00	0.00	0.00	31.00	1.00	0.00	0.00
4	TGM 249-4-B	221.25	35.50	85.75	0.00	0.00	0.00	0.00	28.75	1.00	0.00	0.00
2	TGM 210-1-2363	210.42	39.50	89.75	0.00	0.00	0.00	0.00	23.25	1.00	0.00	0.00
1	TGM 220-1-2205	202.50	47.00	100.75	0.00	0.00	0.00	0.00	23.50	1.00	0.00	0.00
3	TGM 255-2-4341	107.92	35.75	87.00	0.00	0.00	0.00	0.00	21.50	1.00	0.00	0.00
GRAND MEAN		407.50	41.03	94.16	0.00	0.00	0.00	0.00	0.00	33.13	1.00	0.00
STANDARD ERROR OF A VARIETY MEAN		117.03	0.87	0.86	0.00	0.00	0.00	0.00	0.00	2.18	0.00	0.00
COEFFICIENT OF VARIATION		57.44%	4.24%	1.83%	0.00%	0.00%	0.00%	0.00%	0.00%	13.14%	0.00%	0.00
5% LSD VARIETY MEANS (*****=NS)		344.21	2.56	2.53	0.00	0.00	0.00	0.00	6.40			
CORRELATIONS (+ - PROB=.05 + - PROB=.01)												
YIELD	KG/HA	1.00	-0.13	0.04	0.00	0.00	0.00	0.00	0.00	0.60**	0.00	0.00
DAYS TO FLOWER		-0.13	1.00	0.50++	0.00	0.00	0.00	0.00	0.30	-0.19	0.00	0.00
DAYS TO MATURITY		0.04	0.50++	1.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.60++	-0.19	0.32	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.62++	-0.31	-0.15	0.00	0.00	0.00	0.00	0.00	0.65++	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 76 EXPERIMENT 996 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	TGM 256-1-B	1.00	171.00	0.00	4.00
6	TGX 66-5100	1.00	213.00	0.00	4.00
7	TGX 13-3-2644	1.00	162.50	0.00	4.00
5	TGM 294-4-2371	1.00	132.75	0.00	4.00
4	TGM 249-4-B	1.00	131.50	0.00	4.00
2	TGM 210-1-2363	1.00	143.25	0.00	4.00
1	TGM 220-1-2205	1.00	94.00	0.00	4.00
3	TGM 255-2-4341	1.00	120.75	0.00	4.00
	GRAND MEAN	1.00	146.09	0.00	4.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	18.62	0.00	0.00
	COEFFICIENT OF VARIATION	0.00%	25.49%	0.00%	0.00%
	5% LSD VARIETY MEANS (**NS=NS)	0.00	54.75	0.00	0.00
	C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)	
	YIELD KG/HA	0.00	0.62++	0.00	0.00
	DAYS TO FLOWER	0.00	-0.31	0.00	0.00
	DAYS TO MATURITY	0.00	-0.15	0.00	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.65++	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	0.00	0.00
	PODS PER PLANT	0.00	0.00	1.00	0.00
	100 SEED WEIGHT	0.00	0.00	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	1.00

TABLE 77 EXPERIMENT 252 YEAR 1976

REGION - AFRICA
 SITE - DEROKAHA
 LATITUDE - 9 DEG. 5 MIN. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - JULY 23, 1976
 SOIL TYPE - SANDY LOAM, PH 5.5
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 539 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1		NODULE NUMBER 2		NODULE WEIGHT 1		NODULE WEIGHT 2		PLANT HEIGHT	LODGING
					NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT		
1	JUPITER	2228.75	39.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.63	1.00
6	DAVIS	2171.25	37.00	103.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.28	1.00
7	IMPROVED PELICAN	1746.25	39.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.10	1.00
8	FORREST	1686.25	35.00	97.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.70	1.00
5	COBB	1667.50	35.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.45	1.00
2	BOSSIER	1537.50	35.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.78	1.00
3	WILLIAMS	1483.75	37.00	89.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.45	1.00
4	CLARK 63	1387.50	36.00	89.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.68	1.00
GRAND MEAN		1738.59	36.63	97.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.38	1.00
STANDARD ERROR OF A VARIETY MEAN		171.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00
COEFFICIENT OF VARIATION		19.74%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.31%	0.00%
5% LSD VARIETY MEANS (*****=NS)		504.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	0.00
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)														
YIELD KG/HA	1.00	0.33	0.56++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42+	0.00
DAYS TO FLOWER	0.33	1.00	0.49++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78++	0.00
DAYS TO MATURITY	0.56++	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77++	0.00
NODULE NUMBER 1	0.00	0.49++	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.42+	0.78++	0.77++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.10	-0.42+	-0.26	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.54++	0.00
PODS PER PLANT	0.24	0.45++	0.64++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63++	0.00
100 SEED WEIGHT	-0.26	0.05	-0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00
QUALITY OF SEED	0.16	-0.18	0.35+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	0.00

TABLE 77 EXPERIMENT 252 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1 JUPITER		1.00	184.50	17.50	18.80	3.00
6 DAVIS		1.00	346.25	10.00	12.98	3.00
7 IMPROVED PELICAN		1.00	215.75	13.00	14.68	2.00
8 FORREST		1.00	275.00	11.25	12.75	2.00
5 COBB		1.00	275.25	10.50	17.68	3.00
2 BOSSIER		1.00	245.50	9.75	17.78	3.00
3 WILLIAMS		1.00	261.75	7.00	20.25	2.00
4 CLARK 63		1.00	276.75	9.50	19.10	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN	0.00	18.28	1.44	0.25	0.00	
COEFFICIENT OF VARIATION	0.00%	14.05%	26.01%	3.04%	0.00%	
5% LSD VARIETY MEANS (*****=NS)	0.00	53.75	4.23	0.75	0.00	
CORRELATIONS (\downarrow - PROB=.05 \uparrow - PROB=.01)						
YIELD	KG/HA	0.00	0.10	0.24	-0.26	0.16
DAYS TO FLOWER		0.00	-0.42*	0.45**	0.05	-0.18
DAYS TO MATURITY		0.00	-0.26	0.64**	-0.19	0.35+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.54**	0.63**	-0.00	-0.07
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.47**	-0.35+	0.13
PODS PER PLANT		0.00	-0.47**	1.00	-0.06	0.13
100 SEED WEIGHT		0.00	-0.35+	-0.06	1.00	0.24
QUALITY OF SEED		0.00	0.13	0.13	0.24	1.00

TABLE 78 EXPERIMENT 256 YEAR 1976

REGION - AFRICA
 SITE - ODIENNE
 LATITUDE - 9 DEG. 6 MIN. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - JULY 23, 1976
 SOIL TYPE - SANDY LOAM, PH 5.6
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 1252 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
5	COBB	2262.50	36.00	94.00	0.00	0.00	0.00	0.00	33.53	1.00
1	JUPITER	2201.25	40.00	115.00	0.00	0.00	0.00	0.00	72.25	1.00
2	BOSSIER	36.00	94.00	0.00	0.00	0.00	0.00	0.00	33.20	1.00
6	DAVIS	2148.75	37.00	100.50	0.00	0.00	0.00	0.00	33.13	1.00
8	FORREST	2013.75	36.00	94.00	0.00	0.00	0.00	0.00	39.53	1.00
7	IMPROVED PELICAN	2013.75	38.00	93.00	0.00	0.00	0.00	0.00	57.23	1.00
4	CLARK 63	1793.75	37.00	89.00	0.00	0.00	0.00	0.00	40.68	1.00
3	WILLIAMS	1712.50	37.00	89.00	0.00	0.00	0.00	0.00	36.15	1.00
GRAND MEAN		2041.88	37.16	96.06	0.00	0.00	0.00	0.00	43.21	1.00
STANDARD ERROR OF A VARIETY MEAN		129.80	0.09	0.88	0.00	0.00	0.00	0.00	2.61	0.00
COEFFICIENT OF VARIATION		12.71%	0.48%	1.84%	0.00%	0.00%	0.00%	0.00%	12.08%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	0.26	2.60	0.00	0.00	0.00	0.00	7.68	0.00
CORRELATIONS (\leftrightarrow - PROB=.05 \leftrightarrow - PROB=.01)										
YIELD	KG/HA	1.00	0.02	0.35+	0.00	0.00	0.00	0.00	0.16	0.00
DAYS TO FLOWER		0.00	1.00	0.72++	0.00	0.00	0.00	0.00	0.83++	0.00
DAYS TO MATURITY		0.35+	0.72++	1.00	0.00	0.00	0.00	0.00	0.64++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.16	0.83++	0.64++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		-0.05	-0.40+	-0.21	0.00	0.00	0.00	0.00	-0.47++	0.00
PODS PER PLANT		0.49++	0.25	0.35	0.00	0.00	0.00	0.00	0.58++	0.00
100 SEED WEIGHT		-0.04	-0.31	-0.19	0.00	0.00	0.00	0.00	-0.43+	0.00
QUALITY OF SEED		0.18	0.84++	0.89++	0.00	0.00	0.00	0.00	0.77++	0.00

TABLE 78 EXPERIMENT 256 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5 COBB	1.00	295.50	18.70	19.45	2.00
5 JUPITER	1.00	238.50	23.50	17.60	3.00
2 BOSSIER	1.00	289.50	21.78	19.85	2.00
2 DAVIS	1.00	347.50	13.35	17.48	2.00
6 FORREST	1.00	300.50	20.85	16.15	2.00
8 IMPROVED PELICAN	1.00	275.75	23.53	13.93	2.00
4 CLARK 63	1.00	260.50	13.43	18.48	2.00
3 WILLIAMS	1.00	300.25	15.00	21.40	2.00
GRAND MEAN	1.00	288.50	18.77	18.04	2.13
STANDARD ERROR OF A VARIETY MEAN	0.00	17.77	1.28	0.16	0.00
COEFFICIENT OF VARIATION	0.00%	12.32%	13.66%	1.75%	0.00%
5% LSD VARIETY MEANS (*****=NS)	0.00	52.25	3.77	0.46	0.00
CORRELATIONS					
		(+ - PROB=.05	(++ - PROB=.01)		
YIELD	KG/HA	0.00	-0.05	0.49++	-0.04
DAYS TO FLOWER	0.00	-0.40+	0.25	0.31	0.18
DAYS TO MATURITY	0.00	-0.21	0.35	-0.19	0.84++
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	-0.47++	0.58++	-0.43+	0.77++
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.27	0.08	-0.45++
PODS PER PLANT	0.00	-0.27	1.00	-0.35	0.37+
100 SEED WEIGHT	0.00	0.08	-0.35	1.00	-0.08
QUALITY OF SEED	0.00	-0.45++	0.37+	-0.08	1.00

TABLE 79 EXPERIMENT 245 YEAR 1976

REGION - AFRICA
 SITE - SIRASSO
 LATITUDE - 9 DEG. 4 MIN. N
 COOPERATOR - AYEMOU D. ASSA
 DATE PLANTED - JULY 27, 1976
 SOIL TYPE - SAND 85%, SILT 6%, CLAY 9% PH 5.5
 FERTILIZER USED (KG/HA) - N 40.0, P 31.4, K 63.3
 AMOUNT OF MOISTURE - 707 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	Maturity	Days to Maturity	Nodule Number 1	Nodule Number 2	Nodule Weight 1	Nodule Weight 2	Plant Height	Lodging
6	DAVIS	2841.25	33.00	101.00	0.00	0.00	0.00	0.00	0.00	22.33	1.00
7	IMPROVED PELICAN	2590.00	38.00	91.00	0.00	0.00	0.00	0.00	0.00	68.75	1.00
5	COBB	2516.25	33.00	95.00	0.00	0.00	0.00	0.00	0.00	26.18	1.00
1	JUPITER	2201.25	37.00	105.25	0.00	0.00	0.00	0.00	0.00	69.82	1.00
2	BOSSIER	2172.50	32.00	95.00	0.00	0.00	0.00	0.00	0.00	18.30	1.00
8	FORREST	1993.75	32.00	98.00	0.00	0.00	0.00	0.00	0.00	29.52	1.00
4	CLARK 63	1855.00	30.00	90.00	0.00	0.00	0.00	0.00	0.00	39.58	1.00
3	WILLIAMS	1799.00	30.00	90.00	0.00	0.00	0.00	0.00	0.00	37.03	1.00
GRAND MEAN											
STANDARD ERROR OF A VARIETY MEAN											
COEFFICIENT OF VARIATION											
5% LSD VARIETY MEANS (*****=NS)											
CORRELATIONS (* - PROB=.05 ** - PROB=.01)											
YIELD	KG/HA	1.00	0.43*	0.18	0.00	0.00	0.00	0.00	0.00	0.03	0.00
DAYS TO FLOWER		0.43*	1.00	0.31	0.00	0.00	0.00	0.00	0.00	0.73**	0.00
DAYS TO MATURITY		0.18	0.31	1.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
NODULE NUMBER 1		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.03	0.73**	0.08	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.09	-0.19	-0.11	0.00	0.00	0.00	0.00	0.00	-0.23	0.00
PODS PER PLANT		0.04	0.75**	0.21	0.00	0.00	0.00	0.00	0.00	0.85**	0.00
100 SEED WEIGHT		-0.33	0.30	0.00	0.00	0.00	0.00	0.00	0.00	-0.36	0.00
QUALITY OF SEED		-0.45**	-0.07	0.27	0.00	0.00	0.00	0.00	0.00	0.19	0.00

TABLE 79 EXPERIMENT 245 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6 DAVIS		1.00	145.25	29.00	18.68	1.00
7 IMPROVED PELICAN		1.00	139.00	50.75	12.50	1.00
5 COBB		1.00	138.00	30.25	19.55	2.00
1 JUPITER		1.00	119.50	63.75	20.33	3.00
2 BOSSIER		1.00	132.50	30.25	19.48	2.00
8 FORREST		1.00	167.50	40.25	15.88	2.00
4 CLARK 63		1.00	141.00	32.00	17.63	2.00
3 WILLIAMS		1.00	137.00	33.75	18.83	2.00
GRAND MEAN		1.00	139.97	38.75	17.86	1.88
STANDARD ERROR OF A VARIETY MEAN		0.00	9.46	2.21	0.28	0.00%
COEFFICIENT OF VARIATION		0.00%	13.51%	11.41%	3.18%	0.00%
5% LSD VARIETY MEANS (*****=NS)		0.00	*****	6.50	0.83	0.00
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.09	0.04	-0.03	-0.45++
DAYS TO FLOWER		0.00	-0.19	0.75++	-0.35	-0.07
DAYS TO MATURITY		0.00	-0.11	0.21	0.30	0.27
ODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
ODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.23	0.85++	-0.36+	0.19
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.17	-0.20	-0.22
PODS PER PLANT		0.00	-0.17	1.00	-0.20	0.39+
100 SEED WEIGHT		0.00	-0.20	-0.20	1.00	0.60++
QUALITY OF SEED		0.00	-0.22	0.39+	0.60++	1.00

TABLE 80 EXPERIMENT 151

YEAR 1976

REGION - AFRICA
 SITE - MASERU LATITUDE - 29 DEG. 21 MIN. S
 COOPERATOR - CHEN-KIEN CHU DATE PLANTED - DECEMBER 22, 1976
 SOIL TYPE - SILTY LOAM, PH 6.3 FERTILIZER USED (KG/HA) - N 9.2, P 25.0, K 30.0
 AMOUNT OF MOISTURE - 509 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	CORRELATIONS		
											(+ - PROB=.05	(+ - PROB=.01)	(+ - PROB=.01)
2	WOODWORTH	3242.06	45.00	104.00	248.75	659.75	0.44	2.13	74.07	1.00			
7	CUTLER 71	3229.02	46.75	112.25	262.75	803.75	0.69	3.34	93.67	1.25			
9	WILLIAMS	3220.10	45.00	110.75	269.25	582.00	0.52	1.63	75.43	1.00			
13	WELLS	2978.72	39.00	104.25	186.75	467.75	0.44	1.79	61.98	1.00			
14	BEESON	2936.92	39.00	109.50	228.25	311.75	0.62	1.55	74.65	1.00			
1	CALLAND	2929.54	42.75	113.75	151.75	409.75	0.43	1.96	89.00	1.75			
10	CLARK 63	2894.54	44.50	111.25	204.50	526.00	0.41	2.03	84.87	1.00			
15	ESSEX	2563.22	59.25	138.75	511.00	683.25	1.87	3.03	94.75	2.00			
4	RANSOM	2338.22	57.50	125.00	678.00	930.50	1.54	2.53	100.63	4.00			
3	BRAGG	1957.77	62.00	135.50	477.75	637.25	0.75	1.92	116.23	4.75			
6	PICKETT 71	1906.13	66.00	127.75	372.25	309.00	0.73	1.69	93.35	4.25			
12	FORREST	1792.82	59.50	135.50	348.25	663.75	0.83	2.31	106.73	5.00			
8	BOSSIER	1646.62	68.00	139.75	621.00	523.00	1.97	2.52	100.80	5.00			
5	HILL	1572.77	68.25	139.50	503.00	326.25	0.89	1.27	100.80	5.00			
11	DAVIS	1031.87	74.00	149.75	466.25	352.25	1.77	2.38	115.93	5.00			
GRAND MEAN		2416.02	54.43	123.82	368.63	545.73	0.93	2.14	92.19	2.87			
STANDARD ERROR OF A VARIETY MEAN		122.51	0.62	0.61	86.81	85.38	0.23	0.37	2.71	0.16			
COEFFICIENT OF VARIATION		10.14%	2.29%	0.99%	47.10%	31.29%	50.36%	34.14%	5.88%	10.85%			
5% LSD VARIETY MEANS (**NS=NS)		349.64	1.78	1.75	247.77	243.69	0.67	1.04	7.73	0.44			
YIELD	KG/HA	1.00	-0.89++	-0.87++	-0.39++	0.25	-0.43++	0.09	-0.74++	-0.89++			
	FLOWER	-0.89++	1.00	0.94++	0.55++	-0.09	0.55++	0.05	0.78++	0.90++			
	DAYS TO MATURITY	-0.87++	0.94++	1.00	0.53++	-0.08	0.60++	0.09	0.82++	0.87++			
	NODULE NUMBER 1	-0.39++	0.55++	0.53++	1.00	0.45++	0.82++	0.41++	0.43++	0.49++			
	NODULE NUMBER 2	0.25	-0.09	-0.08	0.45++	1.00	0.34++	0.73++	0.11	-0.11			
	NODULE WEIGHT 1	-0.43++	0.55++	0.60++	0.82++	0.34++	1.00	0.51++	0.45++	0.42++			
	NODULE WEIGHT 2	0.09	0.05	0.09	0.41++	0.73++	1.00	0.51++	0.18	-0.08			
	PLANT HEIGHT	-0.78++	0.82++	0.43++	0.11	0.45++	0.18	1.00	0.80++				
	LOGGING	-0.89++	0.90++	0.87++	0.49++	-0.11	0.42++	-0.08	0.80++	1.00			
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PLANTS	HARVEST	0.74++	-0.73++	-0.68++	-0.35++	0.16	-0.38++	-0.07	-0.54++	-0.73++			
PODS PER PLANT	WEIGHT	0.69++	0.75++	0.74++	0.46++	-0.06	0.40++	0.01	0.52++	0.74++			
100 SEED QUALITY	OP SEED	0.78++	-0.86++	-0.79++	-0.51++	0.02	-0.52++	-0.06	-0.52++	-0.73++			
		0.86++	0.82++	0.80++	0.37++	-0.15	0.43++	0.06	0.64++	0.81++			

TABLE 80 EXPERIMENT 151 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
2	WOODWORTH	1.00	207.00	34.28	14.69	1.75	39.5	18.2
7	CUTLER 71	1.00	171.75	33.33	18.27	1.25	39.8	17.2
9	WILLIAMS	1.00	238.00	25.28	18.11	1.00	41.3	18.0
13	WELLS	1.00	213.50	32.20	14.99	1.25	40.5	18.6
14	BEESON	1.00	174.75	29.50	19.11	1.50	41.4	17.7
1	CALLAND	1.00	232.25	23.73	19.55	1.00	42.1	17.1
10	CLARK 63	1.00	229.50	29.10	15.72	1.00	42.0	17.7
15	ESSEX	1.00	201.50	52.58	11.20	2.00	41.7	15.2
4	RANSOM	1.00	205.25	41.50	13.40	2.50	39.7	16.3
3	BRAGG	1.00	157.00	43.28	13.58	2.00	42.0	14.0
6	PICKETT 71	1.00	121.00	56.95	11.39	3.00	42.3	13.9
12	FORREST	1.00	126.25	69.55	12.40	4.00	40.4	15.7
8	BOSSIER	1.00	86.75	60.58	12.30	3.00	41.7	13.8
5	HILL	1.00	130.00	61.88	10.67	3.75	42.5	14.4
11	DAVIS	1.00	119.00	51.63	10.08	5.00	41.3	16.3
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.74++	-0.69++	0.78++	-0.86++		
DAYS TO FLOWER		0.00	-0.73++	0.75++	-0.86++	0.82++		
DAYS TO MATURITY		0.00	-0.68++	0.74++	-0.79++	0.80++		
NODULE NUMBER 1		0.00	-0.35++	0.46++	-0.51++	0.37++		
NODULE NUMBER 2		0.00	0.16	-0.06	0.02	-0.15		
NODULE WEIGHT 1		0.00	-0.38++	0.40++	-0.52++	0.43++		
NODULE WEIGHT 2		0.00	-0.07	0.01	-0.06	0.06		
PLANT HEIGHT		0.00	-0.54++	0.52++	-0.55++	0.64++		
LODGING		0.00	-0.73++	0.74++	-0.73++	0.81++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.72++	0.57++	-0.74++		
PODS PER PLANT		0.00	-0.72++	1.00	-0.75++	0.71++		
100 SEED WEIGHT		0.00	0.57++	-0.75++	1.00	-0.78++		
QUALITY OF SEED		0.00	-0.74++	0.71++	-0.78++	1.00		

TABLE 81 EXPERIMENT 230 YEAR 1976

REGION - AFRICA
 SITE - KOULIKORO
 LATITUDE - 12 DEG. 55 MIN. N
 COOPERATOR - M. CRAMBADE
 DATE PLANTED - JULY 26, 1976
 SOIL TYPE - SAND 52.5%, SILT 39.8%, CLAY 7.7%, PH 6.3
 FERTILIZER USED (KG/HA) - N 7.2, P 18.4, K 30.0
 AMOUNT OF MOISTURE - 488 MM

		COUNTRY - MALI		COUNTRY - MALI			
		ELEVATION - 326 M	LONGITUDE - 7 DEG. 33 MIN. W	ELEVATION - 326 M	LONGITUDE - 7 DEG. 33 MIN. W		
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	PLANT HEIGHT
6	COBB	733.48	0.00	86.00	0.00	0.00	0.00
1	TGM 256-1-B	733.48	0.00	86.00	0.00	0.00	58.00
4	WILLIAMS	729.31	0.00	82.00	0.00	0.00	47.50
3	BOSSTER	720.98	0.00	86.00	0.00	0.00	32.25
9	FOREST	662.63	0.00	86.00	0.00	0.00	2.50
5	CLARK 63	637.63	0.00	82.00	0.00	0.00	47.25
7	DAVIS	508.43	0.00	86.00	0.00	0.00	24.25
8	IMPROVED PELICAN	483.43	0.00	86.00	0.00	0.00	52.00
2	JUPITER	416.75	0.00	97.00	0.00	0.00	45.25
GRAND MEAN		625.12	0.00	86.33	0.00	0.00	40.22
STANDARD ERROR OF A VARIETY MEAN		107.94	0.00	0.00	0.00	0.00	3.26
COEFFICIENT OF VARIATION		34.53%	0.00%	0.00%	0.00%	0.00%	0.49
5% LSD VARIETY MEANS (*****=NS)		*****	0.00	0.00	0.00	0.00	16.19% 9.50 ****
CORRELATIONS		(+ - PROB=.05	(+ - PROB=.01)				
YIELD	KG/HA	1.00	0.00	-0.31	0.00	0.00	0.07
DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	-0.31	0.00	1.00	0.00	0.00	0.00	0.16
NODULE NUMBER 1	0.00	-0.00	0.00	1.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.07	0.00	-0.00	0.00	0.00	0.00	-0.11
LODGING	0.19	0.00	0.16	0.00	0.00	0.00	-0.11
SHATTER	0.07	0.00	0.39*	0.00	0.00	0.00	0.35+
PLANTS HARVEST	0.24	0.00	-0.48**	0.00	0.00	0.00	-0.23
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.24	0.00	-0.14	0.00	0.00	0.00	-0.16
QUALITY OF SEED	0.08	0.00	0.06	0.00	0.00	0.00	0.22

TABLE 81 EXPERIMENT 230 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6 COBB	1.50	43.25	0.00	12.45	4.25	43.0	25.5
1 TGN 256-1-B	3.00	27.00	0.00	9.67	4.50	—	—
4 WILLIAMS	2.00	97.25	0.00	14.20	5.00	43.5	27.4
3 BOSSIER	1.50	41.25	0.00	12.23	4.50	44.5	25.3
9 FORREST	1.00	35.25	0.00	11.65	5.00	42.3	23.5
5 CLARK 63	1.75	82.00	0.00	12.08	5.00	42.6	27.3
7 DAVIS	1.25	73.50	0.00	11.53	4.25	42.9	24.7
8 IMPROVED PELICAN	1.00	33.50	0.00	11.03	4.00	45.4	22.8
2 JUPITER	3.00	33.25	0.00	12.03	5.00	45.2	23.4
STANDARD ERROR OF A VARIETY MEAN	1.78	51.81	0.00	11.87	4.61		
COEFFICIENT OF VARIATION	0.27	9.32	0.00	0.73	0.18		
5* LSD VARIETY MEANS (*****=NS)	30.01*	35.99%	0.00%	12.26%	7.88%		
	0.78	27.21	0.00	2.12	0.53		
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)							
YIELD KG/HA	0.07	0.24	0.00	0.24	0.08		
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY	0.39+	-0.48++	0.00	-0.14	0.06		
ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00		
ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT	0.35+	0.07	0.00	-0.01	0.00		
LODGING	0.47++	-0.23	0.00	-0.16	0.22		
SHATTER	1.00	-0.19	0.00	-0.23	0.25		
HARVEST	-0.19	1.00	0.00	0.44++	0.28		
PLANTS PER PLANT	0.00	0.00	1.00	0.00	0.00		
100 SEED WEIGHT	-0.23	0.44++	0.00	1.00	0.12		
QUALITY OF SEED	0.25	0.28	0.00	0.12	1.00		

TABLE 82 EXPERIMENT 226 YEAR 1976

REGION - AFRICA
 SITE - MARADI
 LATITUDE - 13 DEG. 28 MIN. N
 COOPERATOR - INRAN
 DATE PLANTED - JULY 8, 1976
 SOIL TYPE - CLAY + FINE SILT 17%, PH 6.5
 FERTILIZER USED (KG/HA) - P 45.0
 AMOUNT OF MOISTURE - 484 MM
 NUMBER OF IRRIGATIONS - 1
 COUNTRY - NIGER
 ELEVATION - 351 M
 LONGITUDE - 7 DEG. 7 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	DAVIS	4438.39	32.50	72.00	3.75	0.00	0.00	0.00	0.00	0.00
	COBB	4146.66	28.50	72.00	4.00	0.00	0.00	0.00	0.00	0.00
13	FORREST	4125.82	27.25	69.00	2.00	0.00	0.00	0.00	0.00	0.00
16	BOSSIER	3938.29	26.50	72.00	3.75	0.00	0.00	0.00	0.00	0.00
10	TGM 255-2-4341	3750.75	38.00	72.00	4.25	0.00	0.00	0.00	0.00	0.00
3	TGM 256-1-B	3688.24	38.00	75.00	1.25	0.00	0.00	0.00	0.00	0.00
8	WILLIAMS	3688.24	26.50	72.00	3.25	0.00	0.00	0.00	0.00	0.00
11	TGX 13-3-2644	3563.21	38.00	78.00	1.75	0.00	0.00	0.00	0.00	0.00
7	TGM 210-1-2363	3375.67	38.00	75.00	2.50	0.00	0.00	0.00	0.00	0.00
2	JUPITER	3250.65	38.00	81.00	1.75	0.00	0.00	0.00	0.00	0.00
9	TGM 294-4-2371	3208.97	38.00	75.00	3.50	0.00	0.00	0.00	0.00	0.00
5	CLARK 63	3104.79	27.50	69.00	3.50	0.00	0.00	0.00	0.00	0.00
12	TGX 66-5100	3021.44	38.00	72.00	4.75	0.00	0.00	0.00	C.00	0.00
6	TGM 249-4-B	2917.25	35.50	78.00	3.00	0.00	0.00	0.00	0.00	0.00
4	IMPROVED PELICAN	2875.57	38.00	72.00	5.25	0.00	0.00	0.00	0.00	0.00
15	TGM 220-1-2205	2813.06	38.00	81.00	1.25	0.00	0.00	0.00	0.00	0.00
1										
	GRAND MEAN	3494.19	34.03	74.06	3.09	0.00	0.00	0.00	0.00	0.00
	STANDARD ERROR OF A VARIETY MEAN	326.89	1.22	2.77	0.26	0.00	0.00	0.00	0.00	0.00
	COEFFICIENT OF VARIATION	18.71%	7.15%	7.43%	16.99%	0.00%	0.00%	0.00%	0.00%	0.00%
	5% LSD VARIETY MEANS (***)=NS)	931.13	3.46	*****	0.75	0.00	0.00	0.00	0.00	0.00
	C O R R E L A T I O N S						(+ - PROB=.05	(+ - PROB=.01)		
	YIELD KG/HA	1.00	-0.29+	-0.12	-0.01	0.00				
	DAYS TO FLOWER	-0.29+	1.00	0.46++	-0.12	0.00				
	DAYS TO MATURITY	-0.12	0.46++	1.00	-0.33++	0.00				
	NODULE NUMBER 1	-0.01	-0.12	-0.33++	1.00	0.00				
	NODULE NUMBER 2	0.00	0.00	0.00	1.00	0.00				
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00				
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	1.00				
	PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00				
	LODGING	0.00	0.00	0.00	0.00	0.00				
	SHATTER	0.00	0.00	0.00	0.00	0.00				
	HARVEST	0.40++	-0.41++	-0.53++	0.44++					
	PLANTS PLANT	-0.01	0.33++	0.05	-0.18					
	PODS PER	0.00	0.00	0.00	0.00					
	100 SEED WEIGHT	0.00	0.00	0.00	0.00					
	QUALITY OF SEED	0.00	0.00	0.00	0.00					

TABLE 82 EXPERIMENT 226 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	0.00	127.50	5.20	0.00	0.00	0.00	0.00
13	COBB	0.00	120.00	5.20	0.00	0.00	39.9	25.2
16	PORREST	0.00	139.25	6.67	0.00	0.00	41.8	24.3
10	BOSSIER	0.00	109.25	4.30	0.00	0.00	46.9	23.8
3	TGM 255-2-4341	0.00	132.50	9.30	0.00	0.00	43.5	25.4
8	TGM 256-1-B	0.00	100.00	7.37	0.00	0.00	48.6	20.9
11	WILLIAMS	0.00	142.00	4.32	0.00	0.00	43.1	24.9
7	TGX 13-3-2644	0.00	116.50	5.75	0.00	0.00	43.8	24.1
2	TGM 210-1-2363	0.00	109.25	8.42	0.00	0.00	46.1	22.7
9	JUPITER	0.00	82.75	6.20	0.00	0.00	44.4	25.6
5	TGM 294-4-2371	0.00	99.00	5.90	0.00	0.00	47.7	21.5
12	CLARK 63	0.00	146.25	3.48	0.00	0.00	43.1	24.4
6	TGX 66-5100	0.00	122.25	5.47	0.00	0.00	43.7	21.8
4	TGM 249-4-B	0.00	53.75	10.88	0.00	0.00	42.9	26.8
15	IMPROVED PELICAN	0.00	128.75	4.97	0.00	0.00	42.8	25.4
1	TGM 220-1-2205	0.00	32.00	5.60	0.00	0.00	45.4	26.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 + - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 83 EXPERIMENT 399

YEAR 1976

REGION - AFRICA
 SITE - IBADAN
 COOPERATORS - D. NANGJU, J.P. SINGH
 DATE PLANTED - AUGUST 23, 1976
 DATE HARVESTED - DECEMBER, 1976

COUNTRY - NIGERIA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAKS TO FLOWER	DAKS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
15	FORREST	2861.00	37.00	92.00	173.50	139.50	0.74	0.91	47.65	2.25
10	BOSSIER	2735.50	37.00	92.00	303.50	310.00	1.30	1.70	62.28	2.75
1	TGM 220-1-2205	2346.50	41.00	92.00	440.00	238.00	1.65	1.37	57.45	3.00
12	COBB	2315.25	31.00	92.00	213.50	216.00	0.98	1.32	44.78	1.00
13	DAVIS	2284.53	37.00	92.00	221.50	201.00	1.35	1.71	38.15	1.00
5	TGM 296-4-2371	2262.66	41.00	92.00	311.75	231.50	1.41	1.52	72.18	2.00
2	TGM 210-1-2363	2227.25	37.00	92.00	203.50	218.00	0.83	1.16	54.88	2.00
14	IMPROVED PELICAN	2122.62	37.00	92.00	161.50	194.00	0.81	1.74	80.55	4.00
11	WILLIAMS	2116.33	27.00	92.00	281.75	176.00	1.80	1.36	57.05	1.00
7	TGX 13-3-2044	2092.89	37.00	92.00	127.75	158.75	0.79	1.17	79.95	2.00
6	TGX 66-5-100	2085.08	37.00	92.00	126.50	142.75	0.72	1.28	82.75	2.50
8	TGM 256-1-B	2036.13	41.00	92.00	287.50	189.75	1.45	1.44	65.00	2.00
4	TGM 249-4-B	1749.72	37.00	92.00	154.75	351.25	0.81	1.73	67.55	1.50
9	JUPITER	1728.37	41.00	101.00	226.75	207.75	1.02	1.65	82.55	2.00
3	TGM 255-2-4341	1699.73	37.00	92.00	186.50	175.75	0.97	1.17	70.12	3.50
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS (+ - PROB=.05 + - PROB=.01)										
YIELD KG/HA	1.00	-0.07	-0.29*	0.19	0.06	0.04	-0.01	-0.39**	0.02	0.39**
DAKS TO FLOWER	-0.07	0.29*	0.17	0.09	-0.06	0.07	0.34**	-0.05	0.43**	0.00
DAKS TO MATURITY	-0.29*	1.00	-0.00	-0.01	-0.04	0.11	0.34**	-0.18	0.22	0.05
NODULE NUMBER 1	0.19	0.17	-0.00	1.00	0.30+	0.74**	0.22	-0.18	-0.05	-0.04
NODULE NUMBER 2	0.06	0.09	-0.01	0.30+	1.00	0.25	0.15	-0.15	-0.11	-0.12
NODULE WEIGHT 1	0.04	-0.06	-0.04	0.74**	0.25	1.00	0.25	0.12	-0.01	-0.01
NODULE WEIGHT 2	-0.07	0.11	0.22	0.74**	0.25	0.12	1.00	0.12	0.43**	0.39**
PLANT HEIGHT	-0.39**	0.34**	0.34**	-0.18	-0.05	-0.15	0.12	1.00	0.43**	0.00
LOGGING	0.02	0.39**	-0.05	0.05	-0.04	-0.11	-0.01	0.28	0.48**	1.00
SHATTER	0.07	0.0	-0.10	-0.06	-0.00	-0.01	0.01	-0.13	-0.22	0.71**
PLANTS HARVEST	0.23	0.26+	-0.19	0.08	-0.17	-0.07	-0.13	0.22	-0.20	-0.55**
PODS PER PLANT	-0.20	-0.03	-0.03	0.32+	0.02	0.26+	0.26	-0.16	-0.50**	-0.46**
100 SEED WEIGHT	0.36++	-0.68++	-0.16	0.01	-0.12	0.09	-0.03	-0.05	-0.38++	-0.16
QUALITY OF SEED	0.10	0.03	0.60++	0.13	0.11	0.13	-0.05	-0.05	-0.38++	-0.16

TABLE 83 EXPERIMENT 399 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15 FORREST	1.00	272.00	20.75	17.66	2.00	43.5	21.6
10 BOSSIER	1.00	272.25	19.60	16.77	1.50	45.7	21.2
1 TGM 220-1-2205	1.00	338.00	15.93	14.50	2.00	45.2	20.7
12 COBB	1.00	101.50	46.28	19.82	2.00	40.1	23.9
13 DAVIS	3.00	149.75	34.35	19.85	2.00	46.6	20.1
5 TGM 294-4-2371	1.00	238.00	20.68	15.88	1.50	48.3	18.2
2 TGM 210-1-2363	3.00	304.50	11.28	17.11	1.25	45.4	21.0
14 IMPROVED PELICAN	1.00	343.75	13.40	15.55	1.00	45.2	21.6
11 WILLIAMS	1.00	141.75	38.30	20.26	2.00	42.9	24.1
7 TGX 13-3-2644	1.00	246.75	20.78	16.96	2.00	43.7	22.1
6 TGX 66-5-100	1.00	274.25	15.65	16.83	1.00	44.8	20.1
8 TGM 256-1-B	1.00	123.00	37.73	14.07	1.75	47.8	18.5
4 TGM 249-4-B	1.00	68.25	70.00	14.19	1.00	45.9	21.2
9 JUPITER	1.00	150.25	25.10	15.30	3.00	45.2	20.8
3 TGM 255-2-4341	1.00	291.75	19.00	14.72	1.00	45.2	22.4
GRAND MEAN	1.27	221.05	27.25	16.63	1.67		
STANDARD ERROR OF A VARIETY MEAN	0.00	26.77	6.53	0.58	0.14		
COEFFICIENT OF VARIATION	0.00%	24.22%	47.95%	6.98%	16.99%		
5% LSD VARIETY MEANS (*****=NS)	0.00	76.41	18.65	1.66	0.40		
CORRELATIONS (* - PROB=.05 ** - PROB=.01)							
YIELD	KG/HA	0.07	0.23	-0.20	0.36++	0.10	
DAYS TO FLOWER	0.0	0.26+	-0.25+	-0.68++	0.03		
DAYS TO MATURITY	-0.10	-0.19	-0.03	-0.16	0.60++		
NODEL NUMBER 1	-0.06	0.08	-0.08	0.01	0.13		
NODEL NUMBER 2	-0.00	-0.17	0.32+	-0.12	-0.13		
NODULE WEIGHT 1	-0.01	-0.07	0.02	0.09	0.11		
NODULE WEIGHT 2	0.01	-0.13	0.26+	-0.03	-0.05		
PLANT HEIGHT	-0.48++	0.22	-0.20	-0.50++	-0.16		
LODGING	-0.28+	0.71++	-0.55++	-0.46++	-0.38++		
SHATTER	1.00	0.02	-0.09	0.33+	-0.03		
PLANTS HARVEST	0.02	1.00	-0.80++	-0.15	-0.30+		
PODS PER PLANT	-0.09	-0.80++	1.00	-0.01	0.05		
100 SEED WEIGHT	0.33+	-0.15	-0.01	1.00	0.20		
QUALITY OF SEED	-0.03	-0.30+	0.05	0.20	1.00		

TABLE 84 EXPERIMENT 59 YEAR 1976

REGION - AFRICA
 SITE - SALISBURY
 LATITUDE - 17 DEG. 48 MIN. S
 COOPERATORS - J.R. TATTERSFIELD, J.S. TICHAAGWA
 DATE PLANTED - DECEMBER 10, 1976
 SOIL TYPE - CLAY, PH 5.9
 FERTILIZER USED (KG/HA) - N 24.0, P 19.0, K 25.0
 AMOUNT OF MOISTURE - 904 MM
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETY - ORIBI

		COUNTRY - RHODESIA									
		ELEVATION - 1506 M					LONGITUDE - 31 DEG. 3 MIN. E				
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	
16	ESSEX	3395.29	42.00	121.75	352.25	521.50	0.82	1.89	61.00	1.00	
3	BRAGG	3374.46	42.00	120.00	255.25	707.50	0.75	2.45	64.50	2.00	
4	RANSOM	3369.25	39.00	123.00	208.50	595.25	0.39	2.05	49.50	1.00	
14	FORREST	3265.10	46.00	123.75	249.75	500.00	0.81	2.19	76.25	4.00	
15	COLUMBUS	3176.57	31.25	116.00	210.00	473.25	0.49	2.13	70.25	1.00	
1	CALLAND	3155.74	29.75	109.00	208.50	353.00	0.61	2.35	59.50	1.00	
12	DAVIS	3044.39	60.00	126.00	372.00	644.25	1.71	3.63	84.00	1.25	
10	CLARK 63	3030.76	29.00	102.75	216.25	356.00	0.48	2.15	57.00	1.25	
8	BOSSIER	2968.27	46.00	123.75	357.00	476.75	1.24	2.26	66.00	1.00	
9	WILLIAMS	2931.82	29.00	98.00	321.00	388.75	0.54	2.01	50.00	1.25	
7	ORIBI	2921.41	46.00	124.50	253.25	551.75	0.82	1.87	89.50	1.00	
5	HILL	2822.67	53.00	118.25	285.50	486.00	0.93	2.41	73.75	2.75	
6	PICKETT 71	2692.28	46.00	116.00	267.00	395.50	0.84	1.68	45.75	1.00	
11	COBB	2681.86	53.00	126.00	389.50	721.75	1.25	2.90	87.00	2.50	
1	WOODWORTH	2213.19	29.00	95.00	245.75	370.50	0.47	2.65	49.50	1.50	
13	IMPROVED PELICAN	2109.04	67.00	144.00	359.00	500.75	1.23	2.03	122.00	3.00	
		GRAND MEAN	2947.44	43.00	117.98	284.41	502.66	0.84	2.29	69.09	1.66
		STANDARD ERROR OF A VARIETY MEAN	122.89	0.27	0.68	30.19	37.32	0.08	0.17	1.71	0.19
		COEFFICIENT OF VARIATION	8.34%	1.27%	1.16%	21.23%	14.85%	20.27%	15.16%	4.95%	22.84%
		5% LSD VARIETY MEANS (*****=NS)	350.05	0.78	1.95	86.00	106.32	0.24	0.49	4.87	0.54
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)											
YIELD KG/HA	1.00	-0.27+	-0.02	-0.24	0.16	-0.21	-0.12	-0.34++	-0.22		
DAYS TO FLOWER	-0.27+	1.00	0.86++	0.47++	0.48++	0.76++	0.24	0.74++	0.46++		
DAYS TO MATURITY	-0.02	0.86++	1.00	0.33++	0.51++	0.57++	0.02	0.77++	0.36++		
NODULE NUMBER 1	-0.24	0.47++	0.33++	1.00	0.41++	0.78++	0.43++	0.35++	0.07		
NODULE NUMBER 2	0.16	0.48++	0.51++	0.41++	1.00	0.47++	0.50++	0.36++	0.16		
NODULE WEIGHT 1	-0.21	0.76++	0.57++	0.78++	0.47++	1.00	0.54++	0.56++	0.17		
NODULE WEIGHT 2	-0.12	0.24	0.02	0.43++	0.50++	0.54++	1.00	0.17	0.06		
PLANT HEIGHT	-0.34++	0.77++	0.77++	0.35++	0.36++	0.56++	0.17	1.00	0.50++		
LODGING	-0.22	0.46++	0.36++	0.07	0.16	0.17	0.06	0.50++	1.00		
SHATTER	-0.38++	-0.42++	-0.60++	-0.06	-0.37++	-0.28+	0.13	-0.35++	-0.13		
PLANTS HARVEST	0.09	0.12	0.10	-0.06	0.07	0.03	-0.04	-0.01	-0.03		
PODS PER PLANT	-0.29+	0.61++	0.59++	0.22	0.25+	0.36++	0.01	0.65++	0.30+		
100 SEED WEIGHT	0.45++	-0.53++	-0.34++	-0.30+	-0.04	-0.32+	-0.05	-0.40++	-0.55++		
QUALITY OF SEED	-0.15	-0.28+	-0.29+	-0.07	-0.28+	-0.24	0.00	-0.23	0.17		

TABLE 84 EXPERIMENT 59 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	195.75	37.48	17.13	1.75	44.1	19.1
3	BRAGG	1.00	198.00	32.58	22.24	2.00	42.0	18.8
4	RANSOM	1.00	195.25	23.03	22.29	2.50	42.2	21.8
14	FORREST	1.00	194.50	31.13	17.32	2.75	40.1	19.6
15	COLUMBUS	1.00	195.00	27.38	20.41	2.00	43.6	19.5
1	CALLAND	1.25	191.25	21.20	23.88	2.50	44.3	19.0
12	DAVIS	1.00	199.25	38.50	20.38	1.75	42.3	20.0
10	CLARK 63	1.00	194.75	20.35	20.41	2.50	41.9	20.6
8	BOSSIER	1.00	197.00	30.35	20.61	2.75	44.9	18.5
9	WILLIAMS	1.75	196.00	32.60	23.36	2.75	42.6	19.9
7	ORIBI	0.75	195.75	41.83	22.10	1.00	38.0	18.8
5	HILL	1.00	196.00	33.38	15.59	2.00	41.6	18.3
6	PICKETT 71	1.00	195.25	29.55	18.84	2.00	43.3	19.7
11	COBB	1.00	189.50	41.68	18.49	2.00	40.6	18.7
2	WOODWORTH	3.25	192.50	18.38	17.55	2.75	39.6	20.2
13	IMPROVED PELICAN	1.00	196.00	66.60	15.37	2.50	43.3	16.4
	GRAND MEAN	1.19	195.11	32.87	19.75	2.19		
	STANDARD ERROR OF A VARIETY MEAN	0.13	3.38	5.80	0.31	0.20		
	COEFFICIENT OF VARIATION	21.29%	3.47%	35.28%	3.12%	17.87%		
SX LSD VARIETY MEANS (*****=NS)								
		0.36	*****	16.52	0.88	0.56		
	CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)							
	YIELD KG/HA	-0.38++	0.09	-0.29+	0.45++	-0.15		
	DAYS TO FLOWER	-0.42++	0.12	0.61++	-0.53++	-0.28+		
	DAYS TO MATURITY	-0.60++	0.10	0.59++	-0.34++	-0.29+		
	NODULE NUMBER 1	-0.06	-0.06	0.22	-0.30+	-0.07		
	NODULE NUMBER 2	-0.37++	-0.07	0.25+	-0.04	-0.28+		
	NODULE WEIGHT 1	-0.28+	0.03	0.36++	-0.32+	-0.24		
	NODULE WEIGHT 2	0.13	-0.04	0.01	-0.05	0.00		
	PLANT HEIGHT	-0.35++	0.01	0.65++	-0.40++	-0.23		
	LODGING	-0.10	-0.03	0.30+	-0.55++	0.17		
	SHATTER	1.00	-0.14	-0.26+	-0.07	0.38++		
	PLANTS HARVEST	-0.14	1.00	-0.01	0.01	-0.20		
	PODS PER PLANT	-0.26+	-0.01	1.00	-0.32++	-0.09		
	100 SEED WEIGHT	-0.07	0.01	-0.32++	1.00	-0.06		
	QUALITY OF SEED	0.38++	-0.20	-0.09	-0.06	1.00		

TABLE 85 EXPERIMENT 284 YEAR 1976

REGION - AFRICA
 SITE - AFGOI
 LATITUDE - 2 DEG. 8 MIN. N
 COOPERATORS - H. A. ARKOW, S.-J. OSOBOLE
 DATE PLANTED - SEPTEMBER 28, 1976
 SOIL TYPE - CLAY, PH 7.7
 AMOUNT OF MOISTURE - 130 MM
 NUMBER OF IRRIGATIONS - 3

COUNTRY - SOMALIA

ELEVATION - 13 M
 LONGITUDE - 45 DEG. 7 MIN. E

DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB=.01)
1	JUPITER	3448.26	37.00	117.75	53.75	0.00	0.00	0.00	100.00	2.00	
3	WILLIAMS	2067.39	32.25	89.00	75.25	0.00	0.00	0.00	48.75	2.00	
4	CLARK 63	2034.54	34.00	90.75	68.00	0.00	0.00	0.00	53.75	2.50	
7	IMPROVED PELICAN	1807.49	39.25	97.00	67.00	0.00	0.00	0.00	72.50	1.50	
7	BOSSIER	1715.03	31.75	95.00	73.75	0.00	0.00	0.00	38.75	2.25	
2	DAVIS	1523.32	32.50	101.00	51.75	0.00	0.00	0.00	45.50	2.75	
6	COBB	1516.89	35.50	100.75	61.25	0.00	0.00	0.00	41.25	2.00	
5	CORCORAN	1440.14	36.00	92.75	36.00	0.00	0.00	0.00	42.50	1.50	
8	FORREST										
	GRAND MEAN	1944.13	34.78	98.00	60.84	0.00	0.00	0.00	55.38	2.06	
	STANDARD ERROR OF A VARIETY MEAN	223.61	0.62	1.68	12.12	0.00	0.00	0.00	3.34	0.28	
	COEFFICIENT OF VARIATION	23.00%	3.54%	3.43%	39.84%	0.00%	0.00%	0.00%	12.05%	26.71%	
	5% LSD VARIETY MEANS (*****=NS)	657.65	1.81	4.95	*****	0.00	0.00	0.00	9.82	0.81	
	C O R R E L A T I O N S										
	YIELD KG/HA	1.00	0.15	0.44+	-0.03	0.00	0.00	0.00	0.56++	0.16	
	DAYS TO FLOWER	0.15	1.00	0.35+	0.02	0.00	0.00	0.00	0.57++	-0.38+	
	DAYS TO MATURITY	0.44+	0.35+	1.00	0.01	0.00	0.00	0.00	0.67++	-0.14	
	NODULE NUMBER 1	-0.03	0.02	0.01	1.00	0.00	0.00	0.00	-0.04	-0.04	
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
	PLANT HEIGHT	0.56++	0.57++	0.67++	-0.04	0.00	0.00	0.00	1.00	-0.20	
	LOGGING	-0.16	-0.38+	-0.10	-0.14	0.00	0.00	0.00	-0.20	1.00	
	SHATTER	-0.33	-0.46++	-0.49++	-0.02	0.00	0.00	0.00	-0.59++	0.20	
	PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PODS PER PLANT	0.09	0.29	0.07	-0.25	0.00	0.00	0.00	-0.23	-0.19	
	100 SEED WEIGHT	0.55++	0.07	0.56++	0.33	0.00	0.00	0.00	0.54++	-0.15	
	QUALITY OF SEED	-0.53++	0.05	-0.41+	0.07	0.00	0.00	0.00	-0.53++	-0.11	

TABLE 85 EXPERIMENT 284 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1 JUPITER		1.00	0.00	21.75	21.15	1.50	40.8	26.1
3 WILLIAMS		1.75	0.00	20.50	18.68	2.25	41.8	24.9
4 CLARK 63		1.25	0.00	13.75	16.95	2.00	40.8	25.8
7 IMPROVED PELICAN		1.00	0.00	31.50	16.63	2.25	41.7	24.6
2 BOSSIER		2.00	0.00	22.25	16.50	2.25	42.9	23.7
6 DAVIS		1.50	0.00	19.50	16.18	2.25	42.1	24.6
5 COBB		1.50	0.00	21.25	17.90	2.75	39.0	25.0
8 FORREST		1.75	0.00	18.25	14.58	3.25	41.0	24.0
STANDARD ERROR OF A VARIETY MEAN	GRAND MEAN	1.47	0.00	21.09	17.32	2.31		
COEFFICIENT OF VARIATION	VARIETY MEAN	0.19	0.00	2.84	0.77	0.25		
5% LSD VARIETY MEANS (*****=NS)	25.33%	0.00%	26.93%	8.88%	21.88%			
	C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)	(+ - PROB=.01)			
YIELD	KG/HA	-0.33	0.00	0.09	0.55++	-0.53++		
DAYS TO FLOWER		-0.46++	0.00	0.29	0.07	0.05		
DAYS TO MATURITY		-0.49++	0.00	0.07	0.56++	-0.41+		
NODULE NUMBER 1		0.02	0.00	-0.25	0.33	0.07		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		-0.59++	0.00	0.23	0.54++	-0.53++		
LODGING		0.20	0.00	-0.19	-0.15	-0.11		
SHATTER		1.00	0.00	-0.20	-0.27	0.40+		
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00		
PODS PER PLANT		-0.20	0.00	1.00	-0.06	-0.21		
100 SEED WEIGHT		-0.27	0.00	-0.06	1.00	-0.33		
QUALITY OF SEED		0.40+	0.00	-0.21	-0.33	1.00		

TABLE 86 EXPERIMENT 267 YEAR 1976

REGION - AFRICA
 SITE - WAU
 LATITUDE - 7 DEG. 36 MIN. N
 COOPERATORS - D. HOPKINSON, H.-L.M. VAN WISSEN
 DATE PLANTED - JULY 27 AND
 AUGUST 13, 1976
 SOIL TYPE - SAND 68.6%, SILT 10.1%, CLAY 21.3%
 AMOUNT OF MOISTURE - 450 MM

COUNTRY - SUDAN
 ELEVATION - 450 M
 LONGITUDE - 27 DEG. 53 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAKS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
16	FORREST	1179.40	0.00	78.00	0.00	0.00	0.00	0.00	25.40	1.50
11	WILLIAMS	1104.39	0.00	73.00	0.00	0.00	0.00	0.00	39.70	2.00
15	IMPROVED PELICAN	1087.72	0.00	82.50	0.00	0.00	0.00	0.00	53.15	1.75
14	DAVIS	1029.37	0.00	86.25	0.00	0.00	0.00	0.00	28.00	2.00
9	JUPITER	971.03	0.00	97.00	0.00	0.00	0.00	0.00	45.80	1.75
13	COBB	841.83	0.00	83.00	0.00	0.00	0.00	0.00	24.95	2.00
12	CLARK 63	833.50	0.00	73.00	0.00	0.00	0.00	0.00	35.25	2.75
10	BOSSIER	679.30	0.00	73.00	0.00	0.00	0.00	0.00	21.30	2.00
8	TGM 256-1-B	558.44	0.00	104.25	0.00	0.00	0.00	0.00	36.00	1.50
2	TGM 210-1-2363	495.93	0.00	99.25	0.00	0.00	0.00	0.00	26.25	1.00
7	TGX 13-3-2644	487.60	0.00	112.50	0.00	0.00	0.00	0.00	40.95	1.75
6	TGX 66-5100	437.59	0.00	112.50	0.00	0.00	0.00	0.00	40.35	1.75
1	TGM 220-1-2205	420.92	0.00	101.50	0.00	0.00	0.00	0.00	26.00	1.50
5	TGM 294-4-2371	412.58	0.00	111.00	0.00	0.00	0.00	0.00	39.75	1.75
3	TGM 255-2-4341	275.05	0.00	113.25	0.00	0.00	0.00	0.00	32.25	1.50
4	TGM 249-4-B	54.18	0.00	112.00	0.00	0.00	0.00	0.00	44.80	1.75
GRAND MEAN										
	84.66	0.00	0.98	0.00	0.00	0.00	0.00	0.00	34.99	1.77
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LST VARIETY MEANS (*****=NS)										
CORRELATIONS (+ - PROB=.05 +* - PROB=.01)										
YIELD	KG/HA	1.00	0.00	-0.72++	0.00	0.00	0.00	0.00	0.04	0.19
	FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAKS TO MATURITY		-0.72++	0.00	1.00	0.00	0.00	0.00	0.00	0.27+	-0.31+
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.04	0.00	-0.27+	0.00	0.00	0.00	0.00	1.00	0.04
LODGING		0.19	0.00	-0.31+	0.00	0.00	0.00	0.00	0.04	1.00
SHATTER		-0.45++	0.00	-0.49++	0.00	0.00	0.00	0.00	-0.13	-0.19
PLANTS HARVEST		0.74++	0.00	-0.76++	0.00	0.00	0.00	0.00	-0.20	0.26+
PODS PER PLANT		-0.37++	0.00	-0.58++	0.00	0.00	0.00	0.00	-0.29+	-0.18
100 SEED WEIGHT		0.44++	0.00	-0.48++	0.00	0.00	0.00	0.00	0.06	0.31+
QUALITY OF SEED		0.28+	0.00	-0.22	0.00	0.00	0.00	0.00	0.00	0.01

TABLE 86 EXPERIMENT 267 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	FORREST	1.00	122.50	24.87	12.67	4.00	43.4	20.4
11	WILLIAMS	1.00	126.50	15.20	16.53	2.75	45.1	22.7
15	IMPROVED PELICAN	1.25	92.25	34.03	12.19	2.00	42.4	23.9
14	DAVIS	1.75	123.00	17.95	14.74	2.00	42.9	21.8
9	JUPITER	1.75	84.50	29.42	15.13	3.25	42.9	22.9
13	COBB	2.00	104.25	17.63	15.49	1.75	40.8	22.1
12	CLARK 63	1.50	115.25	15.30	15.18	2.50	41.7	23.5
10	BOSSTIER	1.00	106.00	19.10	13.40	2.50	42.7	21.8
8	TGM 256-1-B	1.50	85.50	20.83	10.75	2.25	45.4	19.4
2	TGM 210-1-2363	3.75	75.25	24.28	13.28	1.25	43.8	21.4
7	TGX 13-3-2644	2.00	35.00	45.20	13.73	2.00	42.3	21.9
6	TGX 66-5100	2.00	41.00	44.57	12.58	1.50	43.8	19.1
	TGM 220-1-2205	3.00	37.75	38.37	10.20	3.00	41.1	20.2
5	TGM 294-4-2371	2.00	107.00	17.45	13.55	2.00	46.3	18.4
3	TGM 255-2-4341	2.25	19.00	43.98	9.77	2.75	45.6	17.1
4	TGM 249-4-B	2.25	8.75	45.07	12.50	2.25	44.9	20.1
GRAND MEAN								
	STANDARD ERROR OF A VARIETY MEAN	1.88	80.22	28.33	13.23	2.36		
	COEFFICIENT OF VARIATION	0.23	7.18	4.26	0.49	0.29		
	5% LSD VARIETY MEANS (**=NS)	24.98%	17.91%	30.09%	7.35%	24.64%		
		0.67	20.46	12.14	1.38	0.83		
CORRELATIONS (++ - PROB=.05 ++ - PROB=.01)								
	YIELD	KG/HA	-0.45++	-0.74++	-0.37++	0.44++	0.28+	
	DAYS TO FLOWER		0.00	0.00	0.00	0.00	0.00	
	DAYS TO MATURITY		-0.49++	-0.76++	-0.58++	-0.48++	-0.22	
	ODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00	
	ODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	
	ODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	
	ODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	
	PLANT HEIGHT		-0.13	-0.20	0.29+	0.06	0.00	
	LODGING		-0.19	-0.26+	-0.18	-0.31+	0.01	
	SHATTER		1.00	-0.47++	0.27+	-0.21	-0.32+	
	PLANTS HARVEST		-0.47++	1.00	-0.74++	0.51++	0.11	
	PODS PER PLANT		0.27+	-0.74++	1.00	-0.39++	-0.13	
	100 SEED WEIGHT		-0.21	0.51++	-0.39++	1.00	-0.10	
	QUALITY OF SEED		-0.32+	0.11	-0.13	-0.10	1.00	

TABLE 87 EXPERIMENT 144 YEAR 1976

REGION - AFRICA
 SITE - BIGBEND
 LATITUDE - 26 DEG. 52 MIN. S
 COOPERATOR - J. CUMBERLAND
 DATE PLANTED - OCTOBER 16, 1976
 SOIL TYPE - SAND 30%, SILT 20%, CLAY 50%
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND		COUNTRY - SWAZILAND		COUNTRY - SWAZILAND	
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1
4	RANSOM	3854.94	70.00	0.00	205.50
6	PICKETT 71	3782.01	72.50	0.00	168.00
11	DAVIS	3709.07	68.25	0.00	144.75
16	WELKOM	3625.72	76.25	0.00	251.00
8	BOSSIER	3573.63	70.00	0.00	186.50
15	COLUMBUS	3459.02	51.25	0.00	237.25
3	BRAGG	3396.51	68.75	0.00	165.25
12	FORREST	3250.65	72.50	0.00	117.75
10	CLARK 63	3052.69	63.75	0.00	185.00
1	CALLAND	2979.76	57.50	0.00	122.25
9	WILLIAMS	2938.09	58.75	0.00	178.25
7	CUTLER 71	2896.41	50.00	0.00	149.50
5	HILL	2865.16	70.00	0.00	112.00
2	WOODWORTH	2510.92	47.50	0.00	154.25
14	BEESON	2073.33	48.75	0.00	140.00
13	WELLS	1812.86	60.00	0.00	103.00
GRAND MEAN		3111.30	62.86	0.00	161.89
STANDARD ERROR OF A VARIETY MEAN		155.23	6.20	0.00	31.01
COEFFICIENT OF VARIATION		9.98%	19.72%	0.00%	38.31%
5% LSD VARIETY MEANS (*****=NS)		442.16	17.66	0.00	88.32
CORRELATIONS (* - PROB=.05 ** - PROB=.01)					
YIELD	KG/HA	1.00	0.39++	0.00	0.34++
DAYS TO FLOWER		0.39++	1.00	-0.02	0.05
DAYS TO MATURITY		0.00	0.00	0.00	0.00
MODULE NUMBER 1		0.34++	-0.02	1.00	0.36++
MODULE NUMBER 2		0.14	0.00	0.00	0.43++
NODULE WEIGHT 1		0.05	0.00	0.66++	1.00
NODULE WEIGHT 2		0.03	-0.22	0.00	0.43++
PLANT HEIGHT		0.19	-0.12	0.00	0.31+
PLANT LODGING		0.00	0.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00
QUALITY OF SEED		-0.42++	-0.26+	-0.32+	0.01

TABLE 87

YEAR 1976

(CONTINUED)

		EXPERIMENT 144		YEAR 1976	
ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	0.00	0.00	2.25
6	PICKETT 71	0.00	0.00	0.00	1.75
11	DAVIS	0.00	0.00	0.00	3.00
16	WELKOM	0.00	0.00	0.00	2.75
8	BOSSIER	0.00	0.00	0.00	1.00
15	COLUMBUS	0.00	0.00	0.00	2.50
3	BRAGG	0.00	0.00	0.00	1.50
12	FORREST	0.00	0.00	0.00	4.25
10	CLARK 63	0.00	0.00	0.00	1.75
1	CALLAND	0.00	0.00	0.00	4.00
9	WILLIAMS	0.00	0.00	0.00	2.50
7	CUTLER 71	0.00	0.00	0.00	3.50
5	HILL	0.00	0.00	0.00	1.75
2	WOODWORTH	0.00	0.00	0.00	1.75
14	BEESON	0.00	0.00	0.00	4.50
13	WELLS	0.00	0.30	0.00	4.50
		GRAND MEAN	0.00	0.00	2.70
		STANDARD ERROR OF A VARIETY MEAN	0.00	0.00	0.25
		COEFFICIENT OF VARIATION	0.00%	0.00%	18.87%
5% LIST VARIETY MEANS (**NS)		0.00	0.00	0.00	0.73
		CORRELATIONS		(++ - PROB=.05)	(++ - PROB=.01)
		YIELD	KG/HA	0.30	0.00
		DAYS TO FLOWER	0.00	0.20	-0.42+
		DAYS TO MATURITY	0.00	0.00	-0.26+
		NODULE NUMBER 1	0.00	0.00	0.00
		NODULE NUMBER 2	0.00	0.00	-0.32+
		NODULE WEIGHT 1	0.00	0.00	0.01
		NODULE WEIGHT 2	0.00	0.00	0.00
		PLANT HEIGHT	0.00	0.00	0.10
		LODGING	0.00	0.00	0.00
		SHATTER	1.00	0.00	0.00
		PLANTS HARVEST	0.00	1.00	0.00
		PODS PER PLANT	0.00	1.00	0.00
		100 SEED WEIGHT	0.00	0.00	1.00
		QUALITY OF SEED	0.00	0.00	1.00

TABLE 88 EXPERIMENT 146 YEAR 1976

REGION - AFRICA
 SITE - MALKERNS
 LATITUDE - 26 DEG. 32 MIN. S
 COOPERATOR - J. CUMBERLAND
 DATE PLANTED - OCTOBER 16, 1976
 SOIL TYPE - SAND 61%, SILT 15%, CLAY 24%, PH 5.0-5.5
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 AMOUNT OF MOISTURE - 888 MM
 NUMBER OF IRRIGATIONS - 2
 LOCAL VARIETY - WELKOM
 COUNTRY - SWAZILAND
 ELEVATION - 800 M
 LONGITUDE - 31 DEG. 10 MIN. E
 DATE HARVESTED - FEBRUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
11	DAVIS	2990.60	79.75	156.00	71.25	117.00	1.30	1.66	66.00	1.25
8	BOSSIER	2558.43	88.00	169.00	56.25	201.25	0.92	2.07	48.40	1.00
5	HILL	2270.45	85.75	165.00	47.50	126.25	0.35	1.06	61.68	1.00
16	WELKOM	2257.95	94.00	169.00	68.25	143.50	1.34	1.80	93.65	2.75
3	BRAGG	2245.03	87.75	169.00	53.00	161.50	0.35	1.65	45.75	1.00
15	COLUMBUS	2210.86	59.25	126.50	100.50	176.25	1.15	3.19	65.50	1.00
12	FORREST	2150.85	86.75	169.00	56.50	135.50	0.43	1.53	63.85	1.00
6	PICKETT 71	1892.88	81.50	169.00	28.00	57.25	0.20	0.64	29.25	1.00
2	WOODWORTH	1649.50	51.00	111.75	65.50	103.25	1.10	1.87	37.65	1.00
14	BEESON	1630.74	58.75	110.00	27.25	110.75	0.49	1.50	30.75	1.00
13	WELLS	1574.90	61.75	110.00	31.50	79.00	0.42	0.89	28.50	1.00
4	RANSOM	1293.59	82.00	169.00	75.00	100.25	0.93	1.03	37.10	1.00
10	CLARK 63	1231.91	56.50	117.00	57.25	108.75	0.75	2.32	41.15	1.00
7	CUTLER 71	1170.23	61.75	117.00	70.75	137.50	1.22	2.25	46.68	1.00
9	WILLIAMS	1076.05	59.50	120.75	96.00	117.25	1.18	1.89	43.95	1.00
1	CALLAND	869.34	60.75	124.50	70.50	139.75	1.14	2.35	44.70	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****NS)										
CORRELATIONS										
(+ - PROB=.05 + + - PROB=.01)										
YIELD KG/HA	1.00	0.45++	0.43++	-0.10	0.15	0.01	-0.00	0.36++	0.19	0.34++
DAYS TO FLOWER	0.45++	1.00	0.91++	-0.16	0.19	-0.20	-0.24	0.49++	0.17	0.25+
DAYS TO MATURITY	0.43++	0.91++	1.00	-0.08	0.12	-0.11	-0.22	0.45++	0.07	0.23
NODULE NUMBER 1	-0.10	-0.16	-0.08	1.00	0.13	0.60++	0.27+	0.24	0.03	0.17
NODULE NUMBER 2	0.15	0.19	0.12	0.13	1.00	-0.00	-0.73++	0.25+	0.20	0.01
NODULE WEIGHT 1	0.01	-0.20	-0.11	-0.60++	-0.00	1.00	-0.20	0.20	-0.20	0.01
NODULE WEIGHT 2	-0.00	-0.00	-0.22	-0.27+	0.73++	0.20	1.00	-0.20	0.20	0.60++
PLANT HEIGHT	0.36++	0.49++	0.45++	-0.23	0.24	0.25+	0.20	1.00	0.60++	1.00
LOGGING	0.19	0.34++	0.25+	0.07	0.03	0.17	0.01	-0.27+	-0.17	0.38++
SHATTER	-0.31+	-0.55++	-0.67++	-0.02	-0.04	-0.10	-0.19	-0.27+	-0.37++	-0.38++
PLANTS HARVEST	-0.08	-0.49++	-0.50++	-0.15	-0.28+	-0.17	-0.13	-0.37++	-0.40++	0.13
PODS PER PLANT	0.03	-0.00	-0.03	-0.18	-0.07	-0.21	-0.13	-0.40++	-0.28+	0.37++
100 SEED WEIGHT	0.26+	0.18	0.20	0.29+	0.13	0.14	0.08	-0.25+	-0.24	-0.17
QUALITY OF SEED	-0.52++	-0.27+	-0.25+	-0.15	0.00	0.08	0.08	-0.24	-0.08	-0.08

TABLE 88 EXPERIMENT 146 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	DAVIS	2.00	229.00	22.75	23.30	3.00	41.8	22.2
8	BOSSIER	1.25	150.25	16.53	23.06	3.50	44.6	20.2
5	HILL	1.00	201.50	53.63	20.51	4.00	43.6	19.4
16	WELKOM	1.50	107.75	31.88	23.71	3.25	44.0	19.4
3	BRAGG	1.00	187.00	13.90	24.43	3.25	43.0	20.0
15	COLUMBUS	1.00	193.00	26.13	20.76	3.00	44.7	19.1
12	FORREST	1.00	178.75	15.80	20.87	2.75	41.8	19.8
6	PICKETT 71	1.00	175.00	14.38	19.33	3.50	42.0	21.7
2	WOODWORTH	2.00	228.50	23.80	21.70	2.25	39.6	21.8
14	BEESON	2.00	227.75	18.90	22.20	3.25	44.3	20.7
13	WELLS	2.00	260.00	15.58	18.63	3.75	44.0	21.5
4	RANSON	1.00	161.75	12.58	20.61	4.25	40.5	24.2
10	CLARK 63	3.00	240.00	25.40	21.41	5.00	45.2	22.2
7	CUTLER 71	2.25	188.00	28.35	20.26	4.50	45.2	20.5
9	WILLIAMS	2.50	183.50	20.50	21.83	4.75	45.9	20.6
1	CALLAND	2.00	218.25	28.60	21.87	5.00	44.8	19.6
STANDARD ERROR OF A VARIETY MEAN		1.66	195.63	23.04	21.53	3.69		
COEFFICIENT OF VARIATION		0.25	14.08	3.81	1.33	0.32		
5% USE VARIETY MEANS (*****=NS)		30.77%	14.40%	33.10%	12.36%	17.45%		
		0.73	40.11	10.86	*****	0.92		
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD	KG/HA	-0.31+	-0.08	0.03	0.26+	-0.52++		
DAYS TO FLOWER		-0.55++	-0.49++	-0.00	0.18	-0.27+		
DAYS TO MATURITY		-0.67++	-0.50++	-0.01	0.20	-0.25+		
NODULE NUMBER 1		-0.02	-0.15	0.18	0.29+	0.15		
NODULE NUMBER 2		-0.04	-0.28+	0.07	0.13	0.00		
NODULE WEIGHT 1		0.10	-0.17	0.21	0.26+	0.08		
NODULE WEIGHT 2		0.19	-0.13	0.13	0.14	0.08		
PLANT HEIGHT		-0.27+	-0.37++	0.40++	0.28+	-0.24		
LODGING		-0.17	-0.38++	0.13	0.37++	-0.17		
SHATTER		1.00	0.26+	0.02	-0.17	0.38++		
PLANTS HARVEST		0.26+	1.00	0.03	-0.03	-0.03		
PODS PER PLANT		0.02	0.03	1.00	-0.03	0.15		
100 SEED WEIGHT		-0.17	-0.03	-0.03	1.00	-0.19		
QUALITY OF SEED		0.38++	-0.03	0.15	-0.19	1.00		

TABLE 89 EXPERIMENT 145 YEAR 1976

REGION - AFRICA
 SITE - MANGCONGO
 LATITUDE - 26 DEG. 35 MIN. S
 COOPERATOR - J. CUMBERLAND
 DATE PLANTED - NOVEMBER 4, 1976
 SOIL TYPE - SAND 51%, SILT 17%, CLAY 32%
 FERTILIZER USED (KG/HA) - P 40.0, K 60.0
 AMOUNT OF MOISTURE - 831 MM
 LOCAL VARIETY - WELKOM

COUNTRY - SWAZILAND
 ELEVATION - 1500 M
 LONGITUDE - 30 DEG. 50 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB.=.01)
3	BRAGG	2277.54	79.50	194.00	38.25	76.75	0.25	1.71	94.77	1.75	
12	FORREST	2207.94	78.00	194.00	12.25	49.75	0.04	0.70	90.40	2.50	
11	DAVIS	2130.43	84.25	194.00	37.25	162.75	0.70	6.32	90.87	2.00	
1	CALLAND	1877.88	66.75	151.00	53.00	74.00	1.03	3.00	57.30	1.00	
4	RANSOM	1872.87	78.50	194.00	80.25	134.75	0.91	2.56	80.90	1.75	
13	FELLS	1804.53	65.75	111.00	35.25	87.75	0.49	2.09	46.55	1.00	
16	WELKOM	1769.10	83.00	194.00	26.00	77.00	0.05	3.37	91.97	1.50	
15	COLUMBUS	1733.68	74.00	151.00	33.00	117.25	0.83	4.47	64.50	2.00	
14	BEESON	1687.84	69.25	131.00	21.25	26.75	0.14	0.67	53.75	1.00	
2	WOODWORTH	1667.20	65.25	111.00	44.75	66.25	0.65	1.78	52.13	1.00	
9	WILLIAMS	1571.98	67.25	131.00	11.25	30.75	0.19	0.62	56.75	1.00	
8	BOSSIER	1488.21	78.75	194.00	57.75	31.00	0.02	0.74	92.82	1.75	
10	CLARK 63	1453.62	68.25	151.00	20.00	40.75	0.27	1.00	68.85	1.00	
7	CUTLER 71	1441.95	70.25	151.00	35.75	42.25	0.71	1.16	62.25	1.00	
5	HILL	1378.19	88.00	161.75	22.25	41.25	0.15	0.48	93.02	1.75	
6	PICKETT 71	1128.14	82.25	194.00	11.75	21.25	0.08	0.35	70.55	1.50	
GRAND MEAN		1718.18	74.94	162.98	30.50	67.52	0.41	1.94	72.96	1.47	
STANDARD ERROR OF A VARIETY MEAN		277.11	1.63	4.65	12.45	20.41	0.19	0.62	3.55	0.36	
COEFFICIENT OF VARIATION		32.26%	4.36%	5.70%	81.63%	60.46%	92.65%	64.25%	9.72%	49.00%	
5* LSD VARIETY MEANS (*****=NS)		4.65	13.23	35.46	58.14	0.54	1.77	10.10	****	*****	
CORRELATIONS											
YIELD	KG/HA	1.00	0.07	0.14	0.29*	0.41**	0.20	0.33**	0.18	0.25*	
DAYS TO FLOWER		0.07	1.00	0.73**	-0.06	0.14	-0.24	0.14	0.75**	0.40**	
DAYS TO MATURITY		0.14	0.73**	1.00	-0.00	0.00	-0.16	-0.15	0.15	0.42**	
NODULE NUMBER 1		0.29	-0.06	-0.00	1.00	0.40**	0.86**	0.32**	-0.04	-0.02	
NODULE NUMBER 2		0.41**	0.14	0.16	0.40**	1.00	0.42**	0.88**	0.13	0.09	
NODULE WEIGHT 1		0.20	-0.24	-0.15	0.86**	0.42**	1.00	0.40**	-0.21	0.00	
NODULE WEIGHT 2		0.33**	0.14	0.15	0.32**	0.88**	0.40**	1.00	0.11	0.01	
PLANT HEIGHT		0.18	0.75**	0.80**	-0.04	0.13	-0.21	0.11	-1.00	0.43**	
LOGGING		0.25*	0.40**	0.42**	-0.02	0.09	0.00	0.01	0.43**	1.00	
SHATTER		0.30*	0.31*	0.43**	0.09	0.24	0.04	0.15	0.35**	0.39**	
PLANTS HARVEST		0.12	-0.36**	-0.49**	0.13	0.16	0.17	-0.10	-0.33**	-0.17	
PODS PER PLANT		0.32**	0.62**	0.61**	-0.12	0.07	-0.26	0.09	0.60**	0.46**	
100 SEED WEIGHT		0.51**	-0.24	-0.03	0.28*	0.26*	0.32**	-0.22	0.03	0.03	
QUALITY OF SEED		-0.20	-0.16	-0.25*	-0.03	-0.13	0.11	-0.09	-0.22	-0.13	

TABLE 89 EXPERIMENT 145 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	BRAGG	2.25	158.75	25.08	19.12	1.00	37.7
12	FORREST	2.75	165.25	28.93	16.55	1.75	37.1
11	DAVIS	1.75	195.25	32.23	17.24	1.00	37.6
1	CALLAND	1.25	178.50	11.13	22.00	3.75	39.2
4	RANSOM	1.75	188.75	23.38	19.26	2.00	30.2
13	WELLS	1.00	203.50	15.55	17.04	2.00	39.5
16	WELKOM	1.75	85.50	36.58	17.18	1.00	40.6
15	COLUMBUS	1.50	167.25	19.30	19.49	3.50	41.3
14	BEESON	1.00	242.25	21.18	18.61	2.25	36.2
2	WOODWORTH	1.00	166.25	15.80	16.22	1.00	37.9
9	WILLIAMS	1.00	194.00	10.65	18.90	2.25	32.8
8	BOSSIER	2.00	78.50	42.45	16.30	1.50	40.7
1C	CLARK 63	1.00	194.00	12.20	16.75	3.50	41.7
7	CUTLER 71	1.25	114.50	11.10	19.34	2.50	39.3
5	HILL	1.00	150.75	22.60	14.90	4.00	37.8
6	PICKETT 71	2.00	100.25	31.13	15.12	1.25	35.0
	GRAND MEAN	1.52	161.45	22.45	17.75	2.14	
	STANDARD ERROR OF A VARIETY MEAN	0.47	16.49	3.36	1.07	0.45	
	COEFFICIENT OF VARIATION	61.68%	20.42%	29.95%	12.10%	42.40%	
	5% LSE VARIETY MEANS (*****=NS)	*****	46.96	9.58	3.06	1.29	
	CORRELATIONS				(+ - PROB=.05	(+ - PROB=.01)	
	YIELD KG/HA	0.30*	0.12	0.32++	0.51++	-0.20	
	DAYS TO FLOWER	0.31+	-0.36++	0.62++	-0.24	-0.16	
	DAYS TO MATURITY	0.43++	-0.49++	0.61++	-0.03	-0.25+	
	NODULE NUMBER 1	0.09	0.13	-0.12	0.28+	-0.03	
	NODULE NUMBER 2	0.24	0.16	0.07	0.26+	-0.13	
	NODULE WEIGHT 1	0.04	0.17	-0.26+	0.32++	0.11	
	NODULE WEIGHT 2	0.15	0.10	0.09	0.26+	-0.09	
	PLANT HEIGHT	0.35++	-0.33++	0.60++	-0.22	-0.22	
	LODGING	0.39++	-0.17	0.46++	0.03	-0.13	
	SHATTER	1.00	-0.18	0.41++	0.11	-0.16	
	PLANTS HARVEST	-0.18	1.00	-0.45++	0.02	0.17	
	PODS PER PLANT	0.41++	-0.45++	1.00	-0.09	-0.40++	
	100 SEED WEIGHT	0.11	0.02	-0.09	1.00	0.21	
	QUALITY OF SEED	-0.16	0.17	-0.40++	0.21	1.00	

TABLE 90 EXPERIMENT 994

YEAR 1976

REGION - AFRICA
 SITE - ILIONGA
 LATITUDE - 6 DEG. 46 MIN. S
 COOPERATOR - M.E.T. MMBAGA
 LOCAL VARIETIES - L4, 1H/192

COUNTRY - TANZANIA
 ELEVATION - 503 M

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
10	BOSSIER L4	2311.09	35.25	80.75	0.00	0.00	0.00	0.00	57.83	0.00
17	COBB	2278.28	35.75	81.25	0.00	0.00	0.00	0.00	62.15	0.00
13	CLARK 63	2241.83	27.00	80.50	0.00	0.00	0.00	0.00	32.55	0.00
12	WILLIAMS	2214.75	33.25	81.75	0.00	0.00	0.00	0.00	44.08	0.00
11	TGX 13-3-2644	2163.20	27.50	76.00	0.00	0.00	0.00	0.00	51.83	0.00
7	2026-24	38.00	89.50	0.00	0.00	0.00	0.00	0.00	61.40	0.00
16	1930.42	28.00	77.00	0.00	0.00	0.00	0.00	0.00	35.85	0.00
1	FORREST	1913.76	37.25	85.25	0.00	0.00	0.00	0.00	42.33	0.00
8	TGM 220-1-2205	1759.09	36.50	79.75	0.00	0.00	0.00	0.00	58.63	0.00
14	TGM 256-1-B	1730.97	28.25	78.00	0.00	0.00	0.00	0.00	27.68	0.00
4	DAVIS	1707.54	33.50	86.75	0.00	0.00	0.00	0.00	68.27	0.00
5	TGM 249-4-B	1578.91	39.75	86.75	0.00	0.00	0.00	0.00	73.95	0.00
6	TGX 66-5100	1467.47	37.00	82.25	0.00	0.00	0.00	0.00	75.68	0.00
3	TGM 255-2-4341	1462.27	35.75	86.50	0.00	0.00	0.00	0.00	66.07	0.00
15	IMPROVED PELICAN	1378.95	34.00	81.75	0.00	0.00	0.00	0.00	73.52	0.00
2	TGM 210-1-2363	1356.55	36.25	83.50	0.00	0.00	0.00	0.00	53.00	0.00
9	JUPITER	1054.00	40.50	91.75	0.00	0.00	0.00	0.00	72.45	0.00
18	1H/192	657.71	48.00	108.25	0.00	0.00	0.00	0.00	98.22	0.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S (+ - PROB=.05 +* - PROB=.01)										
YIELD	KG/HA	1.00	-0.50++	-0.46++	0.00	0.00	0.00	0.00	-0.45++	0.00
DAYS TO FLOWER		-0.50++	1.00	0.83++	0.00	0.00	0.00	0.00	0.78++	0.00
DAYS TO MATURITY		-0.46++	0.83++	1.00	0.00	0.00	0.00	0.00	0.70++	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.45++	0.78++	0.70++	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.28+	0.92	-0.06	0.00	0.00	0.00	0.00	0.13	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 90 EXPERIMENT 994 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
10	BOSSIER	0.00	186.50	0.00	0.00
17	L4	0.00	179.50	0.00	0.00
13	COBB	0.00	126.50	0.00	0.00
12	CLARK 63	0.00	169.50	0.00	0.00
11	WILLIAMS	0.00	178.75	0.00	0.00
7	TGX 13-3-2644	0.00	178.50	0.00	0.00
16	FORREST	0.00	101.00	0.00	0.00
1	TGM 220-1-2205	0.00	57.25	0.00	0.00
8	TGM 256-1-B	0.00	99.50	0.00	0.00
14	DAVIS	0.00	102.00	0.00	0.00
4	TGM 249-4-B	0.00	35.25	0.00	0.00
5	TGM 294-4-2371	0.00	188.25	0.00	0.00
6	TGX 66-5100	0.00	133.25	0.00	0.00
3	TGM 255-2-4341	0.00	179.50	0.00	0.00
15	IMPROVED PELICAN	0.00	150.50	0.00	0.00
2	TGM 210-1-2363	0.00	98.50	0.00	0.00
9	JUPITER	0.00	175.25	0.00	0.00
18	1H/192	0.00	85.00	0.00	0.00
GRAND MEAN					
STANDARD ERROR OF A VARIETY MEAN					
COEFFICIENT OF VARIATION					
5% LSD VARIETY MEANS (*****=NS)					
CORRELATIONS					
(+ - PROB=.05 ++ - PROB=.01)					
YIELD	KG/HA	0.00	0.28+	0.00	0.00
DAYS TO FLOWER	0.00	0.02	0.00	0.00	0.00
DAYS TO MATURITY	0.00	-0.06	0.00	0.00	0.00
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.13	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	1.00	

TABLE 91 EXPERIMENT 274 YEAR 1976

REGION - AFRICA
 SITE - ZANZIBAR
 LATITUDE - 6 DEG. S
 COOPERATOR - A.J. CARPENTER
 DATE PLANTED - JUNE 20, 1976
 SOIL PH 6.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 200 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S	
											** - PROB=.05	** - PROB=.01)
14	DAVIS	859.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00		
11	WILLIAMS	848.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.75	1.00	
13	COBB	671.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.50	1.00	
5	TGM 294-4-2371	640.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	1.00	
10	BOSSIER	630.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.75	1.00	
2	TGM 210-1-2363	583.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.00	1.00	
12	CLARK 63	567.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	1.00	
6	TGX 66-5100	557.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.75	1.00	
16	FORREST	515.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	1.00	
9	JUPITER	494.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.75	1.00	
15	IMPROVED PELICAN	473.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.75	1.00	
4	TGM 249-4-B	463.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.00	1.00	
3	TGM 255-2-4341	453.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.25	1.00	
1	TGM 220-1-2205	416.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.25	1.00	
8	TGM 256-1-B	395.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.50	1.00	
7	TGX 13-3-2644	256.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	1.00	
GRAND MEAN		551.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.30	1.00	
STANDARD ERROR OF A VARIETY MEAN		116.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	0.00	
COEFFICIENT OF VARIATION		42.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.14%	0.00%	
5% LSD VARIETY MEANS (*****=NS)		*****	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.32	0.00	
C O R R E L A T I O N S												
YIELD	KG/HA	1.00	0.CJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 91 EXPERIMENT 274 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER HARVEST	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	DAVIS	1.00	0.00	0.00	0.00	0.00
11	WILLIAMS	1.00	0.00	0.00	0.00	0.00
13	COBB	1.00	0.00	0.00	0.00	0.00
5	TGM 294-4-2371	1.00	0.00	0.00	0.00	0.00
10	BOSSIER	1.00	0.00	0.00	0.00	0.00
2	TGM 210-1-2363	1.00	0.00	0.00	0.00	0.00
12	CLARK 63	1.00	0.00	0.00	0.00	0.00
6	TGX 66-5100	1.00	0.00	0.00	0.00	0.00
16	FORREST	1.00	0.00	0.00	0.00	0.00
9	JUPITER	1.00	0.00	0.00	0.00	0.00
15	IMPROVED PELICAN	1.00	0.00	0.00	0.00	0.00
4	TGM 249-4-B	1.00	0.00	0.00	0.00	0.00
3	TGM 255-2-4341	1.00	0.00	0.00	0.00	0.00
1	TGM 220-1-2205	1.00	0.00	0.00	0.00	0.00
8	TGM 256-1-B	1.00	0.00	0.00	0.00	0.00
7	TGX 13-3-2644	1.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS (* - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA						
DAYS TO FLOWER						
DAYS TO MATURITY						
NODULE NUMBER 1						
NODULE NUMBER 2						
NODULE WEIGHT 1						
NODULE WEIGHT 2						
PLANT HEIGHT						
LODGING						
SHATTER						
PLANTS HARVEST						
PODS PER PLANT						
100 SEED WEIGHT						
QUALITY OF SEED						

TABLE 92 EXPERIMENT 222 YEAR 1976

REGION - AFRICA
 SITE - AMOUTCHOU
 LATITUDE - 7 DEG. 21 MIN. N
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - MAY 13, 1976
 FERTILIZER USED (KG/HA) - P 20.0, K 20.0
 AMOUNT OF MOISTURE - 379 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB=.01)
5	DAVIS	1750.35	25.00	76.00	73.75	189.25	0.00	0.00	18.75	1.00	
	WILLIAMS	1125.22	23.00	69.00	98.00	211.25	0.00	0.00	25.75	1.00	
2		958.52	23.00	74.00	63.00	269.00	0.00	0.00	18.25	1.00	
4	COBB	937.69	23.00	63.00	81.50	181.00	0.00	0.00	31.25	1.00	
3	C.LARK 63	666.80	24.00	80.00	51.00	140.25	0.00	0.00	34.00	1.00	
6	IMPROVED PELICAN	645.96	23.00	69.00	57.00	199.00	0.00	0.00	16.00	1.00	
1	BOSSIER										
	GRAND MEAN	1014.09	23.50	71.83	70.71	198.29	0.00	0.00	24.00	1.00	
	STANDARD ERROR OF A VARIETY MEAN	178.93	0.00	0.00	11.32	27.29	0.00	0.00	4.46	0.00	
	COEFFICIENT OF VARIATION	35.29%	0.00%	0.00%	32.01%	27.53%	0.00%	0.00%	37.17%	0.00%	
5%	LSD VARIETY MEANS (*****=NS)	539.36	0.00	0.00	*****	*****	0.00	0.00	*****	0.00	
	C O R R E L A T I O N S				(+ - PROB=.05	+ + - PROB=.01)					
	YIELD KG/HA	1.00	0.50+	0.09	0.13	0.10	0.00	0.00	0.11	0.00	
	DAYS TO FLOWER	0.50+	1.00	0.65++	-0.11	-0.27	0.00	0.00	-0.01	0.00	
	DAYS TO MATURITY	0.09	0.65++	1.00	-0.34	-0.12	0.00	0.00	0.00	0.00	
	MODULE NUMBER 1	0.13	-0.11	-0.34	1.00	0.17	0.00	0.00	-0.06	0.00	
	MODULE NUMBER 2	0.10	-0.27	-0.12	0.17	1.00	0.00	0.00	-0.53++	0.00	
	MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
	MODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
	PLANT HEIGHT	0.11	-0.01	0.00	-0.06	-0.53++	0.00	0.00	1.00	0.00	
	LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PLANTS HARVEST	0.61++	0.49+	0.10	0.41+	0.07	0.00	0.00	0.20	0.00	
	PODS PER PLANT	0.37	0.05	0.03	-0.31	-0.08	0.00	0.00	0.34	0.00	
	100 SEED WEIGHT	0.54++	0.11	-0.34	0.17	0.12	0.00	0.00	-0.10	0.00	
	QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

TABLE 92 EXPERIMENT 222 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5 DAVIS	1.00	233.50	13.45	18.28	0.00	43.1	24.5
2 WILLIAMS	1.00	217.25	9.72	18.05	0.00	43.0	23.5
4 COBB	1.00	144.25	14.93	15.85	0.00	40.2	24.0
3 CLARK 63	1.00	188.00	14.48	17.25	0.00	41.3	25.2
6 IMPROVED PELICAN	1.00	175.75	12.95	15.14	0.00	43.6	24.0
1 BOSSIER	1.00	97.25	12.75	17.25	0.00	45.6	22.7
GRAND MEAN	1.00	176.00	13.05	16.97	0.00		
STANDARD ERROR OF A VARIETY MEAN	0.00	12.35	1.28	0.64	0.00		
COEFFICIENT OF VARIATION	0.00%	14.04%	19.70%	7.49%	0.00%		
5% LSD VARIETY MEANS (*****=NS)	0.00	37.24	*****	1.92	0.00		
CORRELATIONS (* - PROB=.05 ** - PROB=.01)							
YIELD KG/HA	0.00	0.61**	0.37	0.54**	0.00		
DAYS TO FLOWER	0.00	0.49*	0.05	0.11	0.00		
DAYS TO MATURITY	0.00	0.10	0.03	-0.34	0.00		
NODULE NUMBER 1	0.00	0.41*	-0.31	0.17	0.00		
NODULE NUMBER 2	0.00	0.07	-0.08	0.12	0.00		
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT	0.00	0.20	0.34	-0.10	0.00		
LODGING	0.00	0.00	0.00	0.00	0.00		
SHATTER	1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST	0.00	1.00	-0.19	0.29	0.00		
PODS PER PLANT	0.00	-0.19	1.00	-0.02	0.00		
100 SEED WEIGHT	0.00	0.29	-0.02	1.00	0.00		
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00		

TABLE 93 EXPERIMENT 238 YEAR 1976

REGION - AFRICA
 SITE - BARKOISSI
 LATITUDE - 10 DEG. 32 MIN. N
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - JULY 17, 1976
 FERTILIZER USED (KG/HA) - P 20.0, K 20.0
 AMOUNT OF MOISTURE - 502 MM
 COUNTRY - TOGO
 ELEVATION - 163 M
 LONGITUDE - 0 DEG. 18 MIN. E
 DATE HARVESTED - NOVEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
14	DAVIS	2125.42	22.00	94.00	251.25	585.00	0.00	0.00	35.15	1.00
8	TGM 256-1-B	1729.51	26.25	94.00	409.25	494.50	0.00	0.00	60.10	1.00
9	JUPITER	1521.14	33.00	107.00	364.75	438.00	0.00	0.00	70.25	3.00
2	TGM 210-1-2363	1521.14	32.00	94.00	319.75	696.00	0.00	0.00	53.80	2.00
11	WILLIAMS	1500.30	19.50	107.00	270.50	437.25	0.00	0.00	49.88	2.00
16	FORREST	1458.62	27.00	94.00	290.75	494.25	0.00	0.00	44.65	3.00
4	TGM 249-4-B	1458.62	29.00	93.00	355.00	725.75	0.00	0.00	74.30	3.00
15	IMPROVED PELICAN	1450.29	34.00	94.00	291.25	340.50	0.00	0.00	89.70	1.00
13	COBB	1437.79	33.00	107.00	340.75	570.25	0.00	0.00	54.05	1.00
5	TGM 294-4-2371	1437.79	32.00	103.00	238.25	469.00	0.00	0.00	72.50	3.00
7	TGX 13-3-2644	1312.76	32.00	94.00	305.25	499.00	0.00	0.00	70.25	2.00
10	BOSSIER	1291.92	21.00	94.00	330.50	596.75	0.00	0.00	30.10	1.00
6	TGX 66-5100	1291.92	9.25	94.00	258.50	532.50	0.00	0.00	78.45	1.00
3	TGM 255-2-4341	1146.06	31.00	94.00	355.00	651.50	0.00	0.00	66.60	1.00
12	CLARK 63	979.36	23.25	93.75	273.75	421.00	0.00	0.00	46.20	3.00
1	TGM 220-1-2205	625.12	45.75	107.00	383.50	583.00	0.00	0.00	40.45	3.00
STANDARD ERROR OF A VARIETY MEAN		1392.99	28.13	97.73	314.88	533.39	0.00	0.00	58.53	1.94
STANDARD COEFFICIENT OF VARIATION		235.80	22.17	2.24	48.82	85.60	0.00	0.00	6.01	0.00
5% LSD VARIETY MEANS (*****NS)		33.85%	15.43%	4.59%	31.01%	32.09%	0.00%	0.00%	20.54%	0.00%
		*****	6.18	6.38	*****	*****	0.00	0.00	17.12	0.00
CORRELATIONS										
(+- PROB=.05 ++ - PROB=.01)										
YIELD KG/HA	1.00	-0.14	-0.07	-0.05	0.08	0.00	0.00	0.00	0.22	-0.19
DAYS TO FLOWER	-0.14	1.00	0.35++	0.19	0.05	0.00	0.00	0.00	0.07	0.33++
DAYS TO MATURITY	-0.07	0.35++	1.00	-0.07	-0.05	0.00	0.00	0.00	-0.05	0.24
NODULE NUMBER 1	-0.05	0.19	-0.07	1.00	0.34++	0.00	0.00	0.00	0.03	-0.01
NODULE NUMBER 2	0.08	0.05	-0.00	0.34++	1.00	0.00	0.00	0.00	-0.15	-0.04
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	0.22	0.07	-0.05	0.03	-0.15	0.00	0.00	0.00	1.00	-0.03
LOGGING	-0.19	0.33++	0.24	-0.01	-0.04	0.00	0.00	0.00	-0.03	1.00
SHATTER	-0.17	0.25+	0.51++	0.30+	0.06	0.00	0.00	0.00	0.09	0.16
HARVEST PLANT	0.37++	-0.43++	-0.34++	-0.20	-0.25	0.00	0.00	0.00	-0.03	-0.39++
PLANTS PODS PER	0.17	0.31+	0.03	0.36++	0.20	0.00	0.00	0.00	-0.01	-0.01
100 SEED WEIGHT	0.09	-0.07	0.01	0.47++	0.10	0.00	0.00	0.00	-0.03	0.38++
QUALITY OF SEED	-0.05	-0.21	-0.02	-0.05	-0.14	0.00	0.00	0.00	-0.13	0.32++

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TABLE 93 EXPERIMENT 238 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	DAVIS	1.00	214.75	50.00	21.00	3.00	45.3	23.8
8	TGM 256-1-B	2.00	155.00	47.50	16.00	5.00	49.0	20.6
9	JUPITER	3.00	131.00	69.25	42.00	3.00	44.9	24.7
2	TGM 210-1-2363	1.00	169.25	49.50	21.00	3.00	47.4	21.9
11	WILLIAMS	2.00	209.50	20.25	39.00	5.00	45.3	24.1
16	FORREST	1.00	159.25	41.00	18.00	5.00	44.7	23.5
4	TGM 249-4-B	2.00	66.50	80.25	26.00	3.00	43.5	25.3
15	IMPROVED PELICAN	1.00	218.25	113.75	15.75	2.00	47.2	23.6
13	COBB	2.00	151.25	40.00	22.00	2.00	41.5	25.3
5	TGM 294-4-2371	1.00	28.75	35.25	19.00	4.00	49.3	20.2
7	TGX 13-3-2644	1.00	183.25	49.25	19.00	5.00	45.0	23.9
10	BOSSIER	1.00	152.75	28.75	20.00	3.00	48.9	22.8
6	TGX 66-5-100	2.00	193.25	53.00	17.00	4.00	47.8	19.3
3	TGM 255-2-4341	2.00	118.50	113.75	15.00	3.00	45.9	24.0
12	CLARK 63	1.00	215.25	23.25	23.00	4.00	45.5	24.3
1	TGM 220-1-2205	3.00	28.75	132.50	18.00	4.00	44.1	23.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD	KG/HA	-0.17	0.37++	-0.17	0.09	-0.05		
DAYS TO FLOWER	0.25+	-0.43++	0.31+	-0.07	-0.21			
DAYS TO MATURITY	0.51++	-0.34++	0.03	0.47++	-0.02			
NODULE NUMBER 1	0.30+	-0.20	0.36++	0.01	-0.05			
NODULE NUMBER 2	0.06	-0.25	0.20	-0.10	-0.14			
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00			
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT HEIGHT	0.09	-0.03	0.19	-0.03	-0.13			
LODGING	0.16	-0.39++	-0.01	0.18++	0.32++			
SHATTER	1.00	-0.34++	0.29+	0.42++	-0.02			
PLANTS HARVEST	-0.34++	1.00	-0.37++	0.06	0.01			
PODS PER PLANT	0.29+	-0.37++	1.00	-0.18	-0.23			
100 SEED WEIGHT	0.42++	0.06	-0.18	1.00	0.03			
QUALITY OF SEED	-0.02	0.01	-0.23	0.03	1.00			

TABLE 94 EXPERIMENT 223 YEAR 1976

REGION - AFRICA
 SITE - DAVIE
 LATITUDE - 6 DEG. 26 MIN. N
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - MAY 14, 1976
 SOIL TYPE - SILTY CLAY, PH 7.5
 FERTILIZER USED (KG/HA) - P 40.0, K 30.0
 AMOUNT OF MOISTURE - 257 MM
 NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	Maturity	Days to maturity	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	IMPROVED PELICAN	1625.32	31.00	91.25	165.75	265.50	0.00	0.00	65.18	1.50	
3	WILLIAMS	1333.60	26.00	80.00	192.00	348.75	0.00	0.00	34.73	2.00	
5	COBB	1312.76	30.00	80.00	140.25	230.25	0.00	0.00	29.21	1.25	
1	JUPITER	1271.09	41.00	91.75	362.00	429.75	0.00	0.00	52.32	1.75	
6	DAVIS	1229.41	31.00	80.00	235.00	408.25	0.00	0.00	23.81	2.00	
8	FORREST	1229.41	29.00	80.00	191.50	333.25	0.00	0.00	32.40	1.50	
2	BOSSIER	1187.74	26.00	79.50	290.00	342.50	0.00	0.00	25.38	1.25	
4	CLARK 63	1166.90	26.00	79.50	208.25	299.75	0.00	0.00	29.70	1.75	
GRAND MEAN		1294.53	30.00	82.75	223.09	332.25	0.00	0.00	36.59	1.63	
STANDARD ERROR OF A VARIETY MEAN		124.99	0.20	0.35	35.19	37.61	0.00	0.00	2.09	0.24	
COEFFICIENT OF VARIATION		19.31%	1.36%	0.84%	31.55%	22.64%	0.00%	0.00%	11.44%	29.27%	
5% LSD VARIETY MEANS (*****=NS)		*****	0.60	1.03	103.51	110.60	0.00	0.00	6.15	*****	
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)											
YIELD	KG/HA	1.00	0.11	0.35	-0.00	0.01	0.00	0.00	0.46++	-0.35+	
DAYS TO FLOWER	1.00	0.76++	0.41+	0.33	0.00	0.00	0.00	0.00	0.52++	0.06	
DAYS TO Maturity	0.35	0.76++	1.00	0.29	0.14	0.00	0.00	0.90++	-0.01	-0.22	
NODULE NUMBER 1	0.00	0.41+	0.29	1.00	0.67++	0.00	0.00	0.02	0.00	0.16	
NODULE NUMBER 2	0.01	0.33	0.14	0.67++	1.00	0.00	0.00	0.03	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
PLANT HEIGHT	0.46++	0.52++	0.90++	0.02	-0.03	0.00	0.00	1.00	0.04	1.00	
LODGING	-0.35+	0.06	-0.01	-0.22	0.16	-0.00	0.00	-0.04	0.00	-0.06	
SHATTER	0.16	-0.11	-0.01	-0.19	-0.06	0.00	0.00	0.06	0.00	-0.07	
PLANTS HARVEST	0.29	0.10	0.12	-0.29	-0.09	0.00	0.00	-0.24	0.00	-0.29	
PODS PER PLANT	0.56++	0.58++	0.73++	0.33	0.15	0.00	0.00	0.61++	0.00	0.00	
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	
QUALITY OF SEED	-0.22	0.45++	0.36+	0.49++	0.32	0.00	0.00	0.24	0.00	0.00	

TABLE 94 EXPERIMENT 223 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	IMPROVED PELICAN	2.00	198.75	23.08	0.00	1.25	42.6	23.8
3	WILLIAMS	1.75	197.00	10.00	0.00	2.00	42.7	24.5
5	COBB	1.75	197.50	15.98	0.00	1.00	40.8	25.7
1	JUPITER	1.25	194.25	22.53	0.00	3.00	46.6	23.0
6	DAVIS	2.00	194.00	13.10	0.00	1.00	43.7	23.2
8	FORREST	1.25	198.25	13.60	0.00	2.00	40.3	23.4
2	BOSSIER	2.00	190.75	14.05	0.00	1.50	45.8	21.7
4	CLARK 63	1.00	188.50	10.38	0.00	2.00	44.4	23.8
	GRAND MEAN	1.63	194.88	15.34	0.00	1.72		
	STANDARD ERROR OF A VARIETY MEAN	0.20	3.97	2.15	0.00	0.14		
	COEFFICIENT OF VARIATION	25.12%	4.07%	28.08%	0.00%	16.34%		
	5% LSD VARIETY MEANS (*****=NS)	0.60	*****	6.33	0.00	0.41		

C O R R E L A T I O N S (* - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.16	0.29	0.56++	0.00	-0.22		
DAYS TO FLOWER	-0.11	0.10	0.58++	0.00	0.00	0.45++		
DAYS TO MATURITY	-0.01	0.12	0.73++	0.00	0.00	0.36++		
MODULE NUMBER 1	-0.19	-0.29	0.33	0.00	0.00	0.49++		
MODULE NUMBER 2	-0.06	-0.09	0.15	0.00	0.00	0.32		
MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00		
MODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT	0.06	0.24	0.61++	0.00	0.00	0.24		
LODGING	-0.06	-0.07	-0.29	0.00	0.00	0.16		
SHATTER	1.00	0.10	-0.16	0.00	0.00	-0.54++		
PLANTS HARVEST	0.10	1.00	0.26	0.00	0.00	-0.13		
PODS PER PLANT	-0.16	0.26	1.00	0.00	0.00	0.14		
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	0.00		
QUALITY OF SEED	-0.54++	-0.13	0.14	0.00	1.00			

TABLE 95 EXPERIMENT 221 YEAR 1976

REGION - AFRICA
 SITE - KITANGBAO
 LATITUDE - 9 DEG. 16 MIN. N
 COOPERATOR - I.R.A.T.-TOGO
 DATE PLANTED - JULY 14, 1976
 FERTILIZER USED (KG/HA) - P 30.0, K 30.0
 AMOUNT OF MOISTURE - 817 MM
 SUBSTITUTE VARIETY - HARDEE

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODDING	COUNTRY - TOGO	
											ELEVATION - 340 M	LONGITUDE - 0 DEG. 43 MIN. E
4	TGM 249-4-B	3646.56	32.75	95.75	191.50	388.75	0.00	0.00	68.25	4.00		
7	TGX 13-3-2644	3417.35	37.50	106.00	222.75	485.50	0.00	0.00	73.00	4.00		
16	HARDEE	3396.51	33.50	95.50	248.25	516.75	0.00	0.00	37.00	0.25		
2	TGM 210-1-2363	3354.84	36.00	94.75	237.25	331.25	0.00	0.00	51.75	3.25		
14	DAVIS	3250.65	30.00	94.75	141.00	307.75	0.00	0.00	32.75	0.75		
3	TGM 255-2-4341	3125.62	33.00	94.00	211.75	384.50	0.00	0.00	59.00	2.25		
8	TGM 256-1-B	2979.76	38.00	94.25	224.75	381.50	0.00	0.00	54.50	1.75		
1	TGM 220-1-2205	2958.92	41.00	102.00	278.75	306.75	0.00	0.00	46.50	2.75		
9	JUPITER	2917.25	46.00	109.75	279.75	507.00	0.00	0.00	55.50	3.25		
5	TGM 294-4-2371	2917.25	42.25	102.00	243.75	342.25	0.00	0.00	64.50	3.50		
13	COBB	2854.74	27.00	94.50	100.25	298.25	0.00	0.00	29.00	0.00		
15	IMPROVED PELICAN	2563.01	36.75	89.50	163.00	266.25	0.00	0.00	60.75	1.50		
6	TGX 66-5100	2458.82	35.75	86.00	111.50	215.50	0.00	0.00	54.25	2.25		
10	BOSSIER	2375.47	24.75	88.50	141.75	271.75	0.00	0.00	22.00	1.25		
12	CLARK 63	2187.94	24.25	82.75	84.50	217.75	0.00	0.00	35.25	3.25		
11	WILLIAMS	2021.24	24.00	83.50	134.25	239.50	0.00	0.00	33.25	3.00		
GRAND MEAN		2901.62	33.91	94.59	188.42	341.31	0.00	0.00	48.58	2.31		
STANDARD ERROR OF A VARIETY MEAN		154.02	0.77	0.88	22.64	35.51	0.00	0.00	2.61	0.43		
COEFFICIENT OF VARIATION		10.62%	4.56%	1.85%	24.03%	20.81%	0.00%	0.00%	10.73%	37.10%		
5% LSD VARIETY MEANS (*****=NS)		438.71	2.20	2.49	64.48	101.15	0.00	0.00	7.43	1.22		
CORRELATIONS (* - PROB=.05 ** - PROB=.01)												
YIELD	KG/HA	1.00	0.35++	0.57++	0.49++	0.46++	0.00	0.00	0.48++	0.19		
DAYS TO FLOWER		0.35++	1.00	0.74++	0.64++	0.42++	0.00	0.00	0.65++	0.28*		
DAYS TO MATURITY		0.57++	0.74++	1.00	0.66++	0.64++	0.00	0.00	0.48++	0.23		
NODULE NUMBER 1		0.49++	0.64++	0.66++	1.00	0.51++	0.00	0.00	0.45++	0.32*		
NODULE NUMBER 2		0.46++	0.42++	0.64++	0.51++	1.00	0.00	0.00	0.29+	0.02		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00		
PLANT HEIGHT		0.48++	0.65++	0.48++	0.45++	0.29+	0.00	0.00	1.00	0.59++		
LODDING		0.19	0.28+	0.23	0.32+	0.02	0.00	0.00	0.59++	1.00		
SHATTER		0.20	0.02	0.09	0.05	0.03	0.00	0.00	-0.01	0.08		
PLANTS HARVEST		0.13	-0.01	-0.13	-0.17	-0.23	-0.00	-0.00	-0.30+	0.11		
PODS PER PLANT		0.32+	0.46++	0.59++	0.41++	0.42++	-0.00	0.00	0.39++	0.18		
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

TABLE 95 EXPERIMENT 221 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	TGM 249-4-B	0.00	164.75	37.47	0.00	0.00	45.3
7	TGX 13-3-2644	0.50	216.75	40.17	0.00	0.00	42.4
16	HARDEE	0.00	148.25	32.37	0.00	0.00	43.9
2	TGM 210-1-2363	2.75	204.25	25.35	0.00	0.00	45.3
14	DAVIS	0.25	197.75	23.85	0.00	0.00	44.5
3	TGM 255-2-4341	0.00	223.50	32.17	0.00	0.00	44.5
8	TGM 256-1-B	0.00	185.25	24.97	0.00	0.00	45.8
1	TGM 220-1-2205	0.00	139.25	34.75	0.00	0.00	48.3
9	JUPITER	0.00	59.00	53.62	0.00	0.00	44.1
5	TGM 294-4-2371	0.25	274.00	20.33	0.00	0.00	43.7
13	COBB	1.00	178.25	23.33	0.00	0.00	49.1
15	IMPROVED PELICAN	0.00	172.00	27.55	0.00	0.00	41.7
6	TGX 66-5100	0.00	242.25	22.20	0.00	0.00	45.1
10	BOSSIER	0.00	151.25	18.55	0.00	0.00	46.1
12	CLARK 63	0.00	183.75	14.75	0.00	0.00	47.4
11	WILLIAMS	0.00	132.50	18.90	0.00	0.00	44.1
	GRAND MEAN	0.30	179.55	28.15	0.00	0.00	25.2
	STANDARD ERROR OF A VARIETY MEAN	0.24	13.37	4.77	0.00	0.00	23.8
	COEFFICIENT OF VARIATION	164.28%	14.90%	33.87%	0.00%	0.00%	21.5
5% LSD VARIETY MEANS (*****=NS)							
		0.69	38.10	13.58	0.00	0.00	23.4
							24.5
							24.5
							27.5
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)							
	YIELD	KG/HA	0.20	0.13	0.32+	0.00	0.00
	DAYS TO FLOWER		0.02	-0.01	0.46++	0.00	0.00
	DAYS TO MATURITY		0.09	-0.13	0.59++	0.00	0.00
	ODULE NUMBER 1		0.05	-0.17	0.41++	0.00	0.00
	ODULE NUMBER 2		0.03	-0.23	0.42++	0.00	0.00
	ODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
	ODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT		-0.01	0.30+	0.39++	0.00	0.00
	LODGING		0.08	0.11	0.18	0.00	0.00
	SHATTER		1.00	0.17	-0.08	0.00	0.00
	PLANTS HARVEST		0.17	1.00	-0.38++	0.00	0.00
	PODS PER PLANT		-0.08	-0.38++	1.00	0.00	0.00
	100 SEED WEIGHT		0.00	0.00	1.00	0.00	0.00
	QUALITY OF SEED		0.00	0.00	0.00	1.00	0.00

TABLE 96 EXPERIMENT 324 YEAR 1976

REGION - AFRICA
 SITE - KAMPALA
 LATITUDE - 0 DEG. 28 MIN. N
 COOPERATOR - C.K. BULUNGU
 DATE PLANTED - OCTOBER 21, 1976
 SOIL TYPE - SILT
 FERTILIZER USED (KG/HA) - P 30.8, K 41.5
 AMOUNT OF MOISTURE - 534 MM
 LOCAL VARIETIES - BUKALASA-4, CONGO-72, KABANYOLO-1,
 COUNTRY - UGANDA
 ELEVATION - 1160 M
 LONGITUDE - 32 DEG. 27 MIN. E
 DATE HARVESTED - FEBRUARY 1, 1977

TABLE 96 EXPERIMENT 324 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6 43S	2.00	178.50	19.30	18.50	1.00	43.1	20.8	
2 CONGO-72	1.00	177.00	26.48	16.25	1.00	38.5	21.7	
5 8-350	2.00	200.00	23.60	18.50	1.00	44.9	19.3	
8 43B	2.00	180.00	22.10	18.75	1.00	43.1	20.0	
16 FORREST	1.00	176.50	22.30	15.25	1.00	41.3	21.7	
3 KABANYOLO-1	1.00	217.50	23.18	14.75	1.00	42.1	19.6	
7 43K	2.00	159.00	23.00	19.75	1.00	43.4	19.8	
14 DAVIS	1.00	161.50	19.48	17.00	1.00	42.8	22.1	
9 JUPITER	1.00	152.00	25.55	18.25	1.00	42.8	22.5	
4 403DR	2.00	112.75	21.73	18.50	1.00	43.9	19.5	
15 IMPROVED PELICAN	1.00	212.75	25.03	12.00	1.00	43.8	22.3	
13 COBB	1.00	192.00	16.10	16.00	1.00	41.3	21.8	
11 WILLIAMS	1.00	231.00	14.28	17.25	1.00	43.2	22.0	
1 BUKALASA-4	2.00	141.25	17.43	17.75	1.00	44.9	18.2	
12 CLARK 63	1.00	160.00	17.23	15.00	1.00	42.5	23.1	
10 BOSSIER	1.00	143.00	12.23	15.50	1.00	45.8	21.0	
GRAND MEAN	1.38	174.67	20.56	16.81	1.00			
STANDARD ERROR OF A VARIETY MEAN	0.00	20.62	2.49	0.35	0.00			
COEFFICIENT OF VARIATION	0.00%	23.61%	24.25%	4.19%	0.00%			
5% LSD VARIETY MEANS (**=NS)	0.00	58.72	7.10	1.00	0.00			
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA	0.22	0.19	0.60++	0.30+	0.00			
DAYS TO FLOWER	0.72++	-0.14	0.39++	0.53++	0.00			
DAYS TO MATURITY	0.78++	-0.15	0.37++	0.70++	0.00			
ODULE NUMBER 1	0.54++	-0.08	0.38++	0.44++	0.00			
ODULE NUMBER 2	0.40++	-0.00	0.32++	0.36++	0.00			
ODULE WEIGHT 1	0.57++	-0.00	0.21	0.40++	0.00			
ODULE WEIGHT 2	0.46++	0.02	0.31+	0.36++	0.00			
PLANT HEIGHT	0.47++	0.12	0.51++	0.32+	0.00			
LODGING	0.00	0.00	0.00	0.00	0.00			
SHATTER	1.00	-0.20	0.07	0.69++	0.00			
PLANTS HARVEST	-0.20	1.00	-0.24	-0.24	0.00			
PODS PER PLANT	0.07	-0.24	1.00	0.03	0.00			
100 SEED WEIGHT	0.69++	-0.24	0.03	1.00	0.00			
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00			

TABLE 97 EXPERIMENT 232 YEAR 1976

REGION - AFRICA
 SITE - BOBO-DIOULASSO
 LATITUDE - 11 DEG. 25 MIN. N
 COOPERATOR - C.I. KORTEWEG
 DATE PLANTED - JULY 22, 1976
 SOIL TYPE - CLAY, PH 5.5
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 639 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER		MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
					NUMBER 1	NUMBER 2						
4	CLARK 63	3418.18	27.00	78.00	302.25	465.00	0.00	0.00	0.00	0.00	69.80	4.00
8	FORREST	3374.84	32.00	80.00	329.50	595.00	0.00	0.00	0.00	0.00	59.03	3.00
3	WILLIAMS	3305.24	27.00	75.00	246.25	565.75	0.00	0.00	0.00	0.00	61.20	2.00
5	COBB	2893.91	32.00	84.00	146.25	419.75	0.00	0.00	0.00	0.00	50.55	2.00
6	DAVIS	2806.39	32.00	82.00	252.25	436.00	0.00	0.00	0.00	0.00	45.15	3.00
2	BOSSIER	2707.62	28.00	82.00	218.25	539.25	0.00	0.00	0.00	0.00	42.70	2.00
1	JUPITER	2603.44	44.00	103.00	196.25	757.50	0.00	0.00	0.00	0.00	93.10	3.00
7	IMPROVED PELICAN	2097.09	37.00	84.00	183.50	334.50	0.00	0.00	0.00	0.00	93.90	4.00
GRAND MEAN												
		2900.84	32.38	83.50	234.31	514.09	0.00	0.00	0.00	0.00	64.43	2.88
STANDARD ERROR OF A VARIETY MEAN												
		84.81	0.00	0.00	47.87	98.74	0.00	0.00	0.00	0.00	5.22	0.00
COEFFICIENT OF VARIATION												
		5.85%	0.00%	0.00%	40.86%	38.41%	0.00%	0.00%	0.00	0.00	16.19%	0.00%
5% LSD VARIETY MEANS (*****=NS)												
CORRELATIONS (* - PROB=.05 ++ - PROB=.01)												
YIELD	KG/HA	1.00	-0.58++	-0.48++	0.35+	0.01	0.00	0.00	0.00	0.00	-0.34	-0.17
DAYS TO FLOWER		-0.58++	1.00	0.91++	-0.23	0.21	0.00	0.00	0.00	0.00	0.64++	0.28
DAYS TO MATURITY		-0.48++	0.91++	1.00	-0.25	0.31	0.00	0.00	0.00	0.00	0.49++	0.09
NODULE NUMBER 1		0.35+	-0.23	-0.25	1.00	0.06	0.00	0.00	0.00	0.00	-0.18	0.17
NODULE NUMBER 2		0.01	0.21	0.31	0.06	1.00	0.00	0.00	0.00	0.00	-0.03	-0.16
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
PLANT HEIGHT		-0.34	0.64++	0.49++	-0.18	0.03	0.00	0.00	0.00	0.00	0.57++	1.00
LOGGING		-0.17	0.28	0.09	0.17	-0.16	0.00	0.00	0.00	0.00	-0.34	-0.17
SHATTER		0.14	0.33	0.51++	0.08	0.26	0.00	0.00	0.00	0.00	0.48++	0.46++
PLANTS HARVEST		0.23	-0.53++	-0.57++	-0.03	-0.11	0.00	0.00	0.00	0.00	-0.37*	-0.13
PODS PER PLANT		-0.52++	0.80++	0.70++	-0.35+	0.01	0.00	0.00	0.00	0.00	0.49++	0.16
100 SEED WEIGHT		0.63++	-0.41*	-0.09	0.15	-0.36+	0.00	0.00	0.00	0.00	-0.46++	-0.66++
QUALITY OF SEED		-0.16	0.43*	0.17	0.05	-0.07	0.00	0.00	0.00	0.00	0.53++	0.59++

TABLE 97 EXPERIMENT 232 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	CLARK 63	2.00	210.00	23.50	17.50
8	FORREST	1.00	172.50	38.00	17.20
3	WILLIAMS	1.00	254.00	27.25	19.40
5	COBB	1.00	193.75	39.75	17.00
6	DAVIS	1.00	242.75	31.75	16.40
2	BOSSIER	1.00	180.75	32.00	18.80
1	JUPITER	2.00	146.75	57.50	17.80
7	IMPROVED PELICAN	1.00	187.00	51.25	11.70
	GRAND MEAN	1.25	198.44	37.63	16.97
	STANDARD ERROR OF A VARIETY MEAN	0.00	14.33	3.36	2.88
	STANDARD COEFFICIENT OF VARIATION	0.00%	14.45%	17.86%	0.00%
	5% LSC VARIETY MEANS (*****=NS)	0.00	42.16	9.88	0.00

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.14	0.23	-0.52++	0.63++	-0.16
DAYS TO FLOWER	0.33	-0.53++	0.80++	-0.41+	0.43+	
DAYS TO MATURITY	0.51++	-0.57++	0.70++	-0.09	0.17	
NODULE NUMBER 1	0.08	-0.03	-0.35+	0.15	0.05	
NODULE NUMBER 2	0.26	-0.11	0.01	-0.36+	-0.07	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.48++	-0.37+	0.49++	-0.46++	0.53++	
LODGING	0.46++	-0.13	0.16	-0.66++	0.59++	
SHATTER	1.00	-0.28	0.13	0.18	0.09	
PLANTS HARVEST	-0.28	1.00	-0.50++	0.13	-0.46++	
PODS PER PLANT	0.13	-0.50++	1.00	-0.41+	0.44+	
100 SEED WEIGHT	0.18	0.13	-0.41+	1.00	-0.64++	
QUALITY OF SEED	0.09	-0.46++	0.44+	-0.64++	1.00	

TABLE 98 EXPERIMENT 278 YEAR 1976

REGION - AFRICA
SITE - KISANGA
LATITUDE - 11 DEG. 44 MIN. S
COOPERATOR - T.-G. HART
DATE PLANTED - JANUARY 5, 1977
SOIL TYPE - SAND 22%, SILT 23%, CLAY 55%, PH 6.4
FERTILIZER USED (KG/HA) - N 60.0, P 12.3
AMOUNT OF MOISTURE - 816 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	COUNTRY - ZAIRE ELEVATION - 1187 M LONGITUDE - 27 DEG. 25 MIN. E DATE HARVESTED - APRIL, 1977
9	DAVIS	2352.14	44.00	101.00	143.75	165.50	1.85	3.15	35.40	1.00	
1	TGM 249-4-B	2090.83	44.00	99.25	194.25	238.00	1.68	3.15	63.05	1.00	
4	JUPITER	2019.57	52.00	123.00	216.00	280.75	2.23	4.30	89.75	4.00	
10	IMPROVED PELICAN	1987.90	48.00	99.25	103.00	170.75	1.45	2.68	62.23	1.00	
11	FORREST	1829.12	44.00	97.50	162.00	234.50	1.80	3.28	35.35	1.00	
12	TGM 294-4-2371	1801.61	60.00	117.00	127.25	160.00	1.45	2.10	69.50	1.00	
8	COBB	1788.69	44.00	101.00	209.25	188.75	2.70	3.55	30.20	1.00	
3	TGX 66-5100	1664.92	44.00	94.00	130.00	123.75	1.83	3.05	56.50	1.00	
5	BOSSIER	1621.99	22.00	94.00	211.25	232.75	2.45	4.58	25.90	1.00	
6	WILLIAMS	1446.96	22.00	94.00	267.75	235.50	2.15	3.70	34.25	1.00	
7	CLARK 63	1430.70	27.50	94.00	215.25	208.50	2.33	3.08	37.60	1.00	
GRAND MEAN		1821.31	41.05	101.27	179.98	203.52	1.99	3.33	49.07	1.27	
STANDARD ERROR OF A VARIETY MEAN		202.60	1.76	0.97	26.84	38.07	0.21	0.69	3.27	0.00	
COEFFICIENT OF VARIATION		22.25%	8.58%	1.92%	29.83%	37.41%	20.98%	41.56%	13.31%	0.00%	
5% LSE VARIETY MEANS (**=NS)		*****	5.09	2.81	77.52	*****	0.60	*****	9.43	0.00	
CORRELATIONS (* - PROB=-.05 ** - PROB=-.01)											
YIELD	KG/HA	1.00	0.39++	0.27	-0.02	-0.00	0.01	-0.09	0.31*	0.14	
DAYS TO Maturity	FLOWER	0.39++	1.00	0.69++	-0.44++	-0.18	-0.32+	-0.28	0.66++	0.29	
NODULE NUMBER 1		0.27	0.69++	1.00	-0.09	0.10	-0.08	-0.05	0.73++		
NODULE NUMBER 2		-0.02	-0.44++	-0.09	1.00	0.58++	0.58++	0.51++	-0.15	0.17	
NODULE WEIGHT 1		-0.00	-0.18	0.10	0.58++	1.00	0.09	0.77++	0.06	0.29	
NODULE WEIGHT 2		0.01	-0.32+	-0.08	0.58++	0.09	1.00	0.37+	-0.24	0.12	
PLANT HEIGHT		-0.09	-0.28	-0.05	0.51++	0.77++	0.37+	1.00	-0.10	0.23	
LODGING		0.31+	0.66++	0.75++	-0.15	0.06	-0.24	-0.10	1.00	0.64++	
SHATTER		0.14	-0.29	0.73++	0.17	0.29	-0.12	0.23	0.64++	1.00	
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PODS PER PLANT		-0.20	-0.51++	-0.37+	-0.17	-0.08	-0.09	-0.03	-0.24	-0.07	
100 SEED WEIGHT		0.40++	0.79++	0.78++	-0.24	0.02	-0.19	-0.17	0.76++	0.37+	
QUALITY OF SEED		0.00	-0.14	-0.37+	-0.01	0.47++	0.12	0.45++	-0.37+	0.15	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

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TABLE 98 EXPERIMENT 278 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT OF SEED	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	DAVIS	1.00	208-25	24.83	21.90	1.00	41.7	21.8
1	TGM 249-4-B	1.00	188-00	31.45	18.08	1.00	44.9	19.1
4	JUPITER	1.00	187-75	41.60	20.13	1.00	42.5	20.6
10	IMPROVED PELICAN	1.00	189-00	34.03	16.00	1.00	44.7	19.5
11	FORREST	1.00	203-75	25.78	18.20	1.00	43.6	21.2
2	TGM 294-4-2371	1.00	153-50	49.13	17.23	1.00	43.7	17.5
8	COBB	1.00	169-25	26.25	21.30	1.00	41.6	20.8
3	TGX 66-5-100	1.00	180-00	26.50	16.78	1.00	43.9	19.2
5	BOSSIER	1.00	194-75	18.90	20.13	1.00	45.4	20.9
6	WILLIAMS	1.00	227-25	14.90	21.38	1.00	43.1	20.4
7	CLARK 63	1.00	260-50	15.45	19.23	1.00	43.1	19.4
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS								
			(+ - PROB=.05		(+ - PROB=.01)			
YIELD	KG/HA	0.00	-0.20	0.40++	0.14	0.00		
DAYS TO FLOWER		0.00	-0.51++	0.79++	-0.37+	0.00		
DAYS TO MATURITY		0.00	-0.37+	0.78++	-0.01	0.00		
NODULE NUMBER 1		0.00	0.17	-0.24	0.47++	0.00		
NODULE NUMBER 2		0.00	-0.08	0.02	0.12	0.00		
NODULE WEIGHT 1		0.00	-0.09	-0.19	0.45++	0.00		
NODULE WEIGHT 2		0.00	-0.03	-0.17	0.20	0.00		
PLANT HEIGHT		0.00	-0.24	0.76++	-0.37+	0.00		
LODGING		0.00	-0.07	0.37+	0.15	0.00		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.62++	0.23	0.00		
PODS PER PLANT		0.00	-0.62++	1.00	-0.31+	0.00		
100 SEED WEIGHT		0.00	0.23	-0.31+	1.00	0.00		
QUALITY OF SEED		0.00	0.00	0.00	1.00	0.00		

TABLE 99 EXPERIMENT 187 YEAR 1976

REGION - AFRICA
 SITE - KABWE
 LATITUDE - 14 DEG. 12 MIN. S
 COOPERATORS - N. S. LIPOVAC, P. JAVAHERI
 DATE PLANTED - DECEMBER 14, 1976 DATE HARVESTED - APRIL, 1977
 SOIL TYPE - SAND 77.6%, SILT 13.6%, CLAY 8.8% PH 5.5
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
 AMOUNT OF MOISTURE - 650 MM

COUNTRY - ZAMBIA
 ELEVATION - 1207 M
 LONGITUDE - 28 DEG. 16 MIN. E

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
12	DAVIS	4494-23	39.00	110.50	162.75	268.25	5.60	9.97	72.50	1.00
14	FORREST	4185.84	34.00	105.25	54.25	196.75	1.08	4.55	62.75	1.00
4	RANSOM	4074-98	29.00	100.50	139.25	271.50	2.85	7.60	35.50	1.00
16	ESSEX	4064-56	32.00	105.50	153.50	323.75	2.98	8.05	47.25	1.00
11	COBB	4022.05	36.00	109.00	73.75	220.25	1.80	6.60	61.50	1.00
3	BRAGG	3859-52	31.00	105.50	89.25	239.00	1.73	6.33	46.00	1.00
15	COLUMBUS	3821-60	26.00	95.50	160.00	190.00	3.10	6.60	61.75	1.00
1	CALLAND	3509-87	28.00	96.00	129.75	175.25	2.75	6.33	49.00	1.00
5	HILL	3504-03	41.00	103.75	112.75	169.50	3.53	4.60	65.00	1.00
6	PICKETT 71	3280-66	31.00	98.50	74.00	129.25	1.00	4.43	35.00	1.00
13	IMPROVED PELICAN	3177-72	54.00	110.75	122.00	201.25	2.65	6.65	106.75	1.00
8	BOSSIER	3154-80	31.00	102.00	122.75	183.00	2.55	7.10	34.00	1.00
7	CUTLER 71	3142-71	27.00	94.50	106.25	176.00	2.80	7.38	54.75	1.00
2	WOODWORTH	2858-90	25.00	82.75	117.50	115.50	2.38	3.40	48.50	1.00
10	CLARK 63	2828-48	28.00	90.75	140.50	184.50	2.43	7.30	48.25	1.00
9	WILLIAMS	2784-72	25.00	90.50	107.00	135.00	2.63	4.35	41.50	1.00
GRAND MEAN		3547.79	32.31	100.08	116.58	198.67	2.61	6.33	54.38	1.00
STANDARD ERROR OF A VARIETY MEAN		208.91	0.00	1.72	21.26	37.05	0.43	1.21	2.95	0.00
COEFFICIENT OF VARIATION		11.78%	0.00%	3.43%	36.47%	37.30%	32.95%	38.38%	10.84%	0.00%
5% LSD VARIETY MEANS (*****NS)		595.05	0.00	4.89	60.56	105.53	1.23	3.46	8.39	0.00
CORRELATIONS										
(+) - PROB=.05 (++) - PROB=.01										
YIELD	KG/HA	1.00	0.18	0.55++	0.08	0.57++	0.34++	0.43++	0.19	0.00
DAYS TO FLOWER		0.18	1.00	0.71++	-0.03	0.16	0.12	0.79++		0.00
DAYS TO MATURITY		0.55++	0.71++	1.00	-0.01	0.36++	0.32++	0.33++		0.00
NODULE NUMBER 1		0.08	-0.03	-0.01	1.00	0.32++	0.69++	0.37++	0.07	0.00
NODULE NUMBER 2		0.57++	0.16	0.36++	0.32+	1.00	0.32+	0.62++	0.12	0.00
NODULE WEIGHT 1		0.34++	0.16	0.15	0.69++	0.32+	1.00	0.43++	0.28+	0.00
NODULE WEIGHT 2		0.43++	0.12	0.32++	0.37++	0.62++	0.43++	1.00	0.10	0.00
PLANT HEIGHT		0.19	0.79++	0.43++	0.07	0.12	0.28+	0.10	1.00	0.00
LOGGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS PER HARVEST		-0.03	-0.20	-0.19	-0.11	-0.13	-0.26+	-0.01	0.00	0.00
PODS PER PLANT		0.20	0.34++	0.16	0.24	0.05	0.30+	0.16	0.45++	0.00
100 SEED WEIGHT		0.19	-0.48++	-0.24	0.01	0.11	0.01	0.07	-0.39++	0.00
QUALITY OF SEED		-0.26+	-0.76++	-0.72++	-0.00	-0.28+	-0.26+	-0.28+	-0.43++	0.00

TABLE 99 EXPERIMENT 187 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	DAVIS	0.00	263.25	24.50	21.50	1.00
14	FORREST	0.00	264.25	25.00	20.00	3.00
4	BANSOM	0.00	237.00	20.75	23.00	2.00
16	ESSEX	0.00	250.75	23.75	20.50	3.00
11	COBB	0.00	224.75	26.00	20.50	2.00
3	BRAGG	0.00	265.00	17.25	22.75	2.00
15	COLUMBUS	0.00	280.75	29.50	20.75	4.00
1	CALLAND	0.00	243.25	21.75	24.00	4.00
5	HILL	0.00	234.75	31.25	20.00	2.00
6	PICKETT 71	0.00	252.50	20.75	19.75	3.00
13	IMPROVED PELICAN	0.00	226.25	30.00	15.75	1.00
8	BOSSIER	0.00	166.00	21.75	20.50	2.00
7	CUTLER 71	0.00	240.50	23.50	21.50	3.00
2	WOODWORTH	0.00	236.50	27.00	22.25	4.00
10	CLARK 63	0.00	272.50	22.25	19.25	3.00
9	WILLIAMS	0.00	294.50	17.00	21.75	3.00
STANDARD ERROR OF A VARIETY MEAN		0.00	247.03	23.88	20.86	2.63
STANDARD COEFFICIENT OF VARIATION		0.00%	16.24	2.60	1.10	0.00
5% 1SD VARIETY MEANS (*****=NS)		0.00	13.15%	21.77%	10.56%	0.00%
		0.00	46.26	7.40	3.14	0.00
CORRELATIONS		(+ - PROB=.05	+ + - PROB=.01)			
YIELD	KG/HA	0.00	-0.03	0.20	0.19	-0.26+
DAYS TO FLOWER	0.00	-0.20	0.34++	-0.48++	-0.76++	
DAYS TO MATURITY	0.00	-0.19	0.16	-0.24	-0.72++	
NODULE NUMBER 1	0.00	-0.11	0.24	0.01	-0.00	
NODULE NUMBER 2	0.00	-0.13	0.05	0.11	-0.28+	
NODULE WEIGHT 1	0.00	-0.00	0.30+	0.01	-0.26+	
NODULE WEIGHT 2	0.00	-0.26+	0.16	0.07	-0.28+	
PLANT HEIGHT	0.00	-0.01	0.45++	-0.39++	-0.43++	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.36++	0.08	0.22	
PODS PER PLANT	0.00	-0.36++	1.00	-0.30+	-0.05	
100 SEED WEIGHT	0.00	0.08	-0.30+	1.00	0.27+	
QUALITY OF SEED	0.00	0.22	-0.05	0.27+	1.00	

TABLE 100 EXPERIMENT 189 YEAR 1976

REGION - AFRICA
 SITE - MAGOYE
 LATITUDE - 16 DEG. 1 MIN. S
 COOPERATOR - P. JAVAHERI
 DATE PLANTED - DECEMBER 15, 1976
 SOIL TYPE - SAND 74.5%, SILT 10.0%, CLAY 15.5%, PH 4.8
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 52.0
 AMOUNT OF MOISTURE - 386 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	DAYS TO MATURITY	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	COBB	4155.83	31.50	97.75	27.75	201.00	0.22	1.92	51.95	1.00
1	CALLAND	3993.72	21.00	85.00	28.50	282.25	0.11	1.76	49.20	1.00
13	IMPROVED PELICAN	3826.60	49.00	101.00	215.25	236.50	0.82	2.60	97.45	1.00
16	ESSEX	3785.34	24.00	93.00	54.50	290.75	0.32	1.63	39.90	1.00
15	COLUMBUS	3766.59	21.00	86.50	37.75	256.75	0.16	2.12	52.80	1.25
12	DAVIS	3709.07	37.50	97.25	109.00	285.75	1.62	3.47	68.65	1.25
8	BOSSIER	3646.98	25.75	92.00	25.50	278.00	0.16	1.74	33.40	1.00
5	HILL	3543.63	37.50	93.50	36.50	154.25	0.33	1.85	60.45	2.00
4	RANSOM	3501.53	25.50	92.00	32.50	312.25	0.08	1.70	36.75	1.00
3	BRAGG	3162.72	26.25	92.00	8.00	376.75	0.16	1.35	40.25	1.00
7	CUTLER 71	3024.77	21.00	83.50	66.00	306.75	0.24	2.35	52.70	1.25
10	CLARK 63	2835.57	21.00	82.50	23.75	222.75	0.20	1.48	51.05	1.25
6	PICKETT 71	2746.38	29.50	92.00	5.75	178.75	0.03	1.14	32.70	1.00
9	WILLIAMS	2683.45	21.00	82.00	45.75	136.25	0.21	0.98	45.40	1.25
14	FORREST	2522.17	31.25	94.75	16.75	240.50	0.20	1.72	60.70	1.25
2	WOODWORTH	2250.03	21.00	76.00	26.25	134.25	0.11	1.00	43.00	1.75
192										
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% 1ST VARIETY MEANS (*****=NS)										
1158.81										
40.6.8.2										
24.4.9%										
2.72										
1.10										
40.20										

45.48%										
14.1.57%										
49.72%										
0.62										
1.27										
6.77										

CORRELATIONS

(* - PROB=.05 ** - PROB=.01)

YIELD KG/HA	1.00	0.20	0.38++	0.14	0.06	0.12	0.16	0.15	-0.27+
DAYS TO FLOWER	0.20	1.00	0.80++	0.59++	-0.06	0.42++	0.31+	0.71++	0.02
DAYS TO MATURITY	0.38++	0.80++	1.00	0.37++	-0.14	0.32++	0.32+	0.42++	-0.21
NODULE NUMBER 1	0.14	0.59++	0.37++	1.00	0.07	0.62++	0.38++	0.76++	-0.11
NODULE NUMBER 2	0.06	-0.06	0.14	0.07	1.00	0.05	0.47++	0.03	-0.26+
NODULE WEIGHT 1	0.12	0.42++	0.32++	0.62++	0.05	1.00	0.31+	0.45++	-0.10
NODULE WEIGHT 2	0.16	0.31+	0.32+	0.38++	0.47++	0.31+	1.00	0.35++	-0.07
PLANT HEIGHT	0.15	0.71++	0.42++	0.76++	0.03	0.45++	0.35++	1.00	0.08
LOGGING	-0.27+	0.02	-0.21	-0.11	-0.26+	-0.10	-0.07	0.08	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	-0.18	-0.22	-0.32++	0.07	0.25+	-0.16	0.21	0.12	0.10
PLANT PODS PER	0.27+	0.73++	0.58++	0.61++	-0.11	0.27+	0.20	0.73++	-0.04
100 SEED WEIGHT	0.24	-0.26+	0.03	-0.11	0.48++	-0.04	0.29+	-0.13	-0.17
QUALITY OF SEED	0.00	-0.30+	-0.05	-0.24	-0.06	0.05	-0.14	-0.35++	-0.12

TABLE 100 EXPERIMENT 189 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	COBB	1.00	232.25	32.53	20.85	3.75	39.1	25.3
1	CAYLAND	1.00	253.00	19.25	21.95	2.50	39.4	22.9
13	IMPROVED PELICAN	1.00	220.00	52.07	17.00	1.00	41.9	22.2
16	ESSEX	1.00	220.00	26.27	20.18	3.00	41.3	21.4
15	COLUMBUS	1.00	271.50	16.75	21.45	2.00	41.4	21.8
12	DAVIS	1.00	297.50	25.23	23.28	2.25	41.1	21.8
8	BOSSIER	1.00	191.25	21.60	19.75	2.50	39.8	23.6
5	HILL	1.00	236.25	27.63	17.83	2.25	38.4	22.6
4	RANSOM	1.00	268.25	17.47	21.70	2.75	39.8	23.7
3	BRAGG	1.00	261.50	15.98	22.63	1.75	41.2	22.0
7	CUTLER 71	1.00	240.75	24.65	23.38	2.75	41.9	22.1
10	CLARK 63	1.00	294.50	21.28	19.98	2.25	37.8	23.7
6	PICKETT 71	1.00	202.75	20.83	19.00	3.00	40.1	23.9
9	WILLIAMS	1.00	281.50	15.03	20.68	2.75	37.8	24.4
14	FORREST	1.00	263.25	28.08	18.25	2.75	39.0	22.4
2	WOODWORTH	1.00	278.25	20.25	15.55	2.25	36.3	24.8
	GRAND MEAN	1.00	250.78	24.05	20.21	2.47		
	STANDARD ERROR OF A VARIETY MEAN	0.00	14.51	2.30	0.70	0.33		
	COEFFICIENT OF VARIATION	0.00%	11.57%	1.9.15%	6.90%	26.62%		
	5% LSD VARIETY MEANS (*****=NS)	0.00	41.33	6.56	1.99	0.94		
	CORRELATIONS (* - PROB=.05 ** - PROB=.01)							
	YIELD KG/HA	0.00	-0.18	0.27*	0.24	0.00		
	DAYS TO FLOWER	0.00	-0.22	0.73++	-0.26+	-0.30+		
	DAYS TO MATURITY	0.00	-0.32++	0.58++	0.03	-0.05		
	ODULE NUMBER 1	0.00	0.07	0.61++	-0.11	-0.24		
	ODULE NUMBER 2	0.00	0.25+	-0.11	0.48++	-0.06		
	ODULE WEIGHT 1	0.00	0.16	0.27+	-0.04	0.05		
	ODULE WEIGHT 2	0.00	0.21	0.20	0.29+	-0.14		
	PLANT HEIGHT	0.00	0.12	0.73++	-0.13	-0.35++		
	LODGING	0.00	0.10	-0.04	-0.17	-0.12		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS HARVEST	0.00	1.00	-0.38++	0.26+	-0.06		
	PODS PER PLANT	0.00	-0.38++	1.00	-0.31+	-0.15		
	100 SEED WEIGHT	0.00	0.26+	-0.31+	1.00	0.06		
	QUALITY OF SEED	0.00	-0.06	-0.15	0.06	1.00		

TABLE 101

EXPERIMENT 188

YEAR 1976

REGION - AFRICA
 SITE - MAGOYE
 LATITUDE - 15 DEG. 5 MIN. S
 COOPERATOR - P. JAHVERI
 DATE PLANTED - DECEMBER 16, 1976
 SOIL TYPE - SAND 48.9%, SILT 28.3%, CLAY 22.8%, PH 4.35
 FERTILIZER USED (KG/HA) - N 30.0, P 27.0, K 25.0
 AMOUNT OF MOISTURE - 378 MM

COUNTRY - ZAMBIA
 ELEVATION - 1049 M
 LONGITUDE - 27 DEG. 46 MIN. E
 DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	BOSSIER	2574.26	27.50	93.50	7.50	140.75	0.05	0.71	34.20	1.00
2	WOODWORTH	2563.43	23.00	76.00	5.75	59.50	0.00	0.51	38.55	1.00
12	DAVIS	2545.51	37.00	98.50	14.25	101.75	0.10	0.93	51.15	1.50
11	COBB	2533.84	34.00	96.75	18.75	77.00	0.14	0.62	44.00	1.00
1	CALLAND	2457.57	23.00	88.50	5.00	107.25	0.00	0.61	51.50	1.00
15	COLUMBUS	2445.91	23.00	91.00	7.00	131.50	0.02	0.57	50.80	1.00
3	BRAGG	2337.55	27.25	89.50	1.00	133.75	0.00	0.62	41.65	1.00
16	ESSEX	2331.30	27.00	92.50	12.50	99.75	0.01	0.64	34.75	1.00
5	HILL	2253.37	37.00	92.50	18.75	85.75	0.03	1.19	51.10	2.00
14	FORREST	2247.53	34.75	94.00	8.25	79.50	0.01	0.52	46.80	1.00
4	RANSOM	2184.60	27.00	94.00	4.50	141.25	0.00	0.62	32.05	1.00
10	CLARK 63	2141.26	23.00	81.25	11.25	100.75	0.06	0.43	43.60	1.75
9	WILLIAMS	2094.17	23.00	80.50	12.50	63.00	0.02	0.27	40.20	1.25
13	IMPROVED PELICAN	1990.81	44.00	107.25	46.50	59.00	0.14	0.68	82.70	1.75
6	PICKETT 71	1948.72	27.00	87.00	3.75	84.50	0.03	0.40	28.95	1.00
7	CUTLER 71	1847.87	23.00	80.50	7.00	88.75	0.00	0.41	44.15	1.25
194										
	GRAND MEAN	2281.11	28.78	90.20	11.52	97.11	0.04	0.61	44.76	1.22
	STANDARD ERROR OF A VARIETY MEAN	170.51	0.23	1.63	4.01	21.61	0.03	0.17	2.38	0.15
	COEFFICIENT OF VARIATION	14.95%	1.62%	3.61%	69.60%	44.50%	152.92%	57.28%	10.63%	23.88%
	5% LSD VARIETY MEANS (*****=NS)	*****	0.67	4.63	11.42	*****	0.08	*****	6.77	0.41

CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	0.10	-0.01	0.15	-0.11	0.15	-0.05	0.17	-0.04	-0.20
DAYS TO FLOWER	-0.01	1.00	0.78++	0.63++	-0.17	0.45++	0.34++	0.60++	0.39++
DAYS TO MATURITY	0.15	0.78++	1.00	0.41++	0.08	0.32+	0.28+	0.51++	0.07
MODULE NUMBER 1	-0.11	0.63++	0.41++	1.00	-0.14	0.49++	0.30+	0.67++	0.48++
MODULE NUMBER 2	0.15	-0.17	0.08	-0.14	1.00	-0.16	0.49++	-0.20	-0.23
MODULE WEIGHT 1	-0.05	0.45++	0.32+	0.49++	-0.16	1.00	0.21	0.35++	0.18
MODULE WEIGHT 2	0.17	0.34++	0.28+	0.30+	0.49++	-0.21	1.00	0.18	0.34++
PLANT HEIGHT	-0.04	0.60++	0.51++	0.67++	-0.20	0.35++	0.18	1.00	0.46++
LODGING	-0.20	0.39++	0.07	0.48++	-0.08	0.23	0.34++	1.00	
SHATTER	0.07	0.01	0.15	-0.08	0.13	0.10	0.22	0.02	-0.04
PLANTS HARVEST	0.11	-0.28+	-0.33++	-0.24	0.07	-0.23	0.01	-0.08	-0.00
PLANT PODS PER	0.01	0.41++	0.33++	0.51++	-0.17	0.44++	0.01	0.44++	0.27+
100 SEED WEIGHT	0.40++	0.11	0.23	0.00	0.15	0.02	0.13	0.22	-0.04
QUALITY OF SEED	-0.10	-0.07	-0.19	0.08	-0.13	-0.18	-0.07	0.10	0.14

TABLE 101 EXPERIMENT 188 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT OF SEED	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BOSSIER	1.25	155.50	21.13	18.65	2.25	41.3
2	WOODWORTH	1.00	251.25	17.42	17.75	2.75	40.0
12	DAVIS	1.50	263.75	21.67	21.75	2.25	42.0
11	COBB	1.00	208.50	26.45	17.80	2.50	38.7
1	CALLAND	1.25	263.25	14.08	20.53	3.50	40.8
15	COLUMBUS	1.00	236.75	18.58	18.20	1.50	41.4
3	BRAGG	1.00	260.50	15.63	18.93	2.75	41.8
16	ESSEX	1.00	234.00	19.53	16.03	2.25	40.9
5	HILL	1.00	231.75	18.17	17.35	2.25	39.3
14	FORREST	1.00	220.25	20.42	16.03	2.75	38.4
4	RANSOM	1.25	234.25	16.25	17.70	2.25	40.0
10	CLARK 63	1.00	237.50	24.03	16.35	2.50	41.1
9	WILLIAMS	1.00	255.25	19.92	18.63	3.25	41.0
13	IMPROVED PELICAN	1.00	181.50	30.40	18.78	2.75	43.4
6	PICKETT 71	1.00	205.50	17.65	16.13	2.75	40.9
7	CUTLER 71	1.25	208.00	22.28	17.95	2.50	40.1
	GRAND MEAN	1.09	227.97	20.22	18.03	2.55	
	STANDARD ERROR OF A VARIETY MEAN	0.15	9.74	2.10	0.71	0.23	
	COEFFICIENT OF VARIATION	27.04%	8.54%	20.77%	7.83%	18.23%	
5 X 1SD VARIETY MEANS {*****=NS}		*****	27.74	5.98	2.01	0.66	
CORRELATIONS (+ - PROB=.05)				(+ - PROB=.05)	(+ - PROB=.05)	(+ - PROB=.01)	
YIELD	KG/HA	0.07	-0.11	0.01	0.40++	-0.10	
DAYS TO FLOWER		0.01	-0.28*	0.41++	0.11	-0.07	
DAYS TO MATURITY		0.15	-0.33++	0.33++	0.23	-0.19	
NODE NUMBER 1		-0.08	-0.24	0.51++	0.00	0.08	
NODE NUMBER 2		0.13	0.07	-0.17	0.15	-0.13	
NODE WEIGHT 1		0.10	-0.23	0.44++	0.02	-0.18	
NODE WEIGHT 2		0.22	0.01	0.01	0.13	-0.07	
PLANT HEIGHT		0.02	-0.08	0.44++	0.22	0.10	
LODGING		-0.04	-0.00	0.27+	-0.04	0.14	
SHATTER		1.00	0.01	0.04	0.27+	0.06	
PLANTS HARVEST		0.01	1.00	-0.44++	0.17	0.12	
PODS PER PLANT		0.04	-0.44++	1.00	-0.12	-0.19	
100 SEED WEIGHT		0.27+	0.17	-0.12	1.00	0.13	
QUALITY OF SEED		0.06	0.12	-0.19	0.13	1.00	

TABLE 102 EXPERIMENT 997

YEAR 1976

REGION - AFRICA
 SITE - MAGOYE
 LATITUDE - 16 DEG. 1 MIN. S
 COOPERATOR - P. JAVAHERI
 DATE PLANTED - DECEMBER 17, 1976
 SOIL TYPE - SAND 68.9%, SILT 13.1%, CLAY 18.0%, PH 4.9
 FERTILIZER USED (KG/HA) - N 25.0, P 22.0, K 21.0
 AMOUNT OF MOISTURE - 370 MM
 LOCAL VARIETY - GEDULD

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS	
											(+ - PROB=.05	(+ - PROB=.01)
7	TGX 13-3-2644	2968.09	44.00	112.00	4.00	18.75	0.24	2.61	97.10	2.00		
15	GEDULD	2795.98	44.00	102.00	7.50	34.00	0.75	4.44	72.60	1.00		
14	DAVIS	2775.55	40.50	103.00	3.00	22.50	0.27	3.95	56.40	1.00		
1	TGM 220-1-2205	2672.62	60.00	112.00	15.00	21.00	1.31	2.90	79.20	4.75		
4	TGM 249-4-B	2602.60	42.50	104.50	1.50	11.25	0.07	1.16	70.00	1.00		
16	FORREST	2594.27	38.00	98.25	2.00	20.75	0.10	1.93	57.60	1.00		
8	TGM 256-1-B	2561.35	51.00	109.00	11.25	18.50	0.56	2.44	100.50	3.00		
13	COBB	2523.42	38.00	103.00	2.75	14.50	0.39	2.02	53.15	1.00		
5	TGM 294-4-2371	2484.66	62.00	109.00	13.00	22.75	1.73	2.92	84.60	1.00		
10	BOSSIER	2375.89	35.75	97.00	4.00	18.00	0.13	1.48	40.20	1.00		
11	WILLIAMS	2341.72	25.00	87.00	3.75	11.25	0.07	0.89	39.55	1.25		
2	TGM 210-1-2363	2203.77	49.00	102.25	6.75	11.25	0.44	1.99	73.75	1.50		
3	TGM 255-2-4341	2139.59	44.50	108.00	3.50	20.50	0.71	1.69	65.40	1.00		
6	TGX 66-5100	2043.74	51.25	98.00	6.50	12.50	0.30	1.74	72.65	1.75		
9	JUPITER	1915.38	62.00	122.75	14.50	16.25	1.30	2.56	109.65	2.75		
12	CLARK 63	1573.23	25.00	80.00	2.50	7.50	0.08	0.81	41.45	1.50		
196	GRAND MEAN	2410.74	44.53	102.98	6.34	17.58	0.53	2.21	69.61	1.66		
	VARIETY MEAN	187.71	1.57	0.44	2.17	3.52	0.26	0.52	2.12	0.21		
	COEFFICIENT OF VARIATION	15.57%	7.05%	0.86%	68.56%	40.06%	98.08%	46.60%	6.10%	25.16%		
	5% LSD VARIETY MEANS (***(****=NS))	534.69	4.47	1.26	6.19	10.03	0.74	1.47	6.05	0.59		

TABLE 102 EXPERIMENT 997 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	TGX 13-3-2644	1.00	238.75	20.25	18.95	1.25
15	GEDULD	1.00	243.75	21.00	20.15	2.75
14	DAVIS	1.00	121.00	36.25	21.13	1.50
1	TGM 220-1-2205	1.00	159.25	27.50	16.45	1.00
4	TGM 249-4-B	1.00	162.50	29.50	18.53	1.00
16	FORREST	1.00	248.25	24.50	17.15	2.25
8	TGM 256-1-B	1.00	253.00	27.75	15.10	1.25
13	COBB	1.00	171.00	30.25	19.43	2.75
5	TGN 294-4-2371	1.00	315.50	25.00	17.65	2.00
10	BOSSIER	1.00	240.50	22.75	19.00	2.25
11	WILLIAMS	1.00	328.50	11.75	18.38	2.50
2	TGM 210-1-2363	1.00	285.50	18.25	19.90	2.25
3	TGM 255-2-4341	1.00	206.50	39.50	14.33	1.25
6	TGX 66-5100	1.00	227.50	28.75	15.70	1.50
9	JUPITER	1.00	327.75	28.00	17.00	1.25
12	CLARK 63	1.00	283.25	13.25	16.73	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	-0.30+	0.22	0.25	0.06
DAYS TO FLOWER	0.00	0.03	0.38++	-0.22	-0.32++	
DAYS TO MATURITY	0.00	-0.12	0.48++	-0.10	-0.35++	
NODULE NUMBER 1	0.00	0.20	0.15	-0.15	-0.29+	
NODULE NUMBER 2	0.00	-0.13	0.16	0.12	-0.10	
NODULE WEIGHT 1	0.00	0.14	0.27+	-0.13	-0.24	
NODULE WEIGHT 2	0.00	-0.16	0.16	0.24	-0.03	
PLANT HEIGHT	0.00	0.16	0.19	-0.24	-0.33++	
LODGING	0.00	-0.06	0.02	-0.29+	-0.33++	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.56++	-0.17	0.22	
PODS PER PLANT	0.00	-0.56++	1.00	-0.17	-0.33++	
100 SEED WEIGHT	0.00	-0.17	-0.17	1.00	0.25+	
QUALITY OF SEED	0.00	0.22	-0.33++	0.25+	1.00	

TABLE 103 EXPERIMENT 186 YEAR 1976

REGION - AFRICA
 SITE - MUPILIBA
 LATITUDE - 12 DEG. 37 MIN. S
 COOPERATORS - A.A.V. SARMEZEY, P.
 DATE PLANTED - DECEMBER 12, 1976
 SOIL TYPE - SANDY LOAM, PH 4.3
 FERTILIZER USED (KG/HA) - N 30-0, P 27-0, K 25-0
 AMOUNT OF MOISTURE - 905 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
1	CALLAND	2453.32	25.00	105-50	65-25	138-25	0-40	2-30	50-75	1-00
15	COLUMBUS	2346.47	26.50	96-75	112-50	147-00	0-42	2-04	53-75	1-00
12	DAVIS	2241.36	40.00	111-75	96-50	100-25	0-86	2-00	55-75	1-00
4	RANSOM	2173.85	28.00	110-00	70-25	105-50	0-24	2-03	41-25	1-00
16	ESSEX	2034.49	30.00	107-50	126-50	169-00	0-52	2-97	43-75	1-00
3	BRAGG	1931.59	29.00	95-25	47-00	78-00	0-25	1-34	43-75	1-00
8	BOSSIER	1850.62	28.75	111-75	125-00	147-75	0-49	2-01	41-00	1-00
9	WILLIAMS	1840.53	26.00	87-00	119-50	93-50	0-58	1-95	47-25	1-00
6	PICKETT 71	1797.44	30.00	99-25	28-00	46-75	0-14	0-97	38-50	1-00
5	HILL	1751.35	39.00	102-50	69-50	31-75	0-58	0-82	55-00	1-75
11	COBB	1658.08	33.00	110-75	51-25	63-00	0-36	1-11	48-75	1-00
10	CLARK 63	1520.30	26.00	90-50	94-50	106-25	0-53	2-02	50-75	1-00
14	FORREST	1501.63	33.00	104-50	49-75	66-25	0-14	1-50	45-75	1-00
13	IMPROVED PELICAN	1488.17	48.00	110-50	45-75	81-75	0-77	1-15	69-50	1-25
2	WOODWORTH	1476.21	25.00	84-00	99-25	55-00	0-58	1-71	41-00	1-00
7	CUTLER 71	1466.25	26.00	90-75	59-50	88-25	0-42	2-22	44-75	1-00
198	GRAND MEAN	1845.73	30-83	101-09	78-75	94-89	0-45	1-76	48-20	1-06
	STANDARD ERROR OF A VARIETY MEAN	237.75	0.14	1.40	21.73	19-85	0-13	0-43	3-70	0-14
	COEFFICIENT OF VARIATION	25.76%	0.90%	2.76%	55-19%	41-84%	56-75%	48-98%	15-33%	25.78%
	5% LSD VARIETY MEANS (*****=NS)	*****	0.39	3.97	61.90	56-54	0.37	*****	10.53	0.39
	C O R R E L A T I O N S				(* - PROB=.05		(+ - PROB=.01)			
	YIELD KG/HA	1-00	-0-11	0-28+	0-33++	0-48++	0-25*	0-43++	0-36++	0-01
	DAYS TO FLOWER	-0-11	1-00	0-55++	-0-19	-0-24	0-31+	-0-29+	0-35++	
	DAYS TO MATURITY	0-28+	0-55++	1-00	-0-01	0-23	0-11	0-04	0-24	0-08
	NODULE NUMBER 1	0-33++	-0-19	-0-01	1-00	0-48++	0-64++	0-48++	0-08	0-07
	NODULE NUMBER 2	0-48++	-0-24	0-23	0-48++	1-00	0-23	0-75++	0-05	-0-12
	NODULE WEIGHT 1	0-25+	0-31+	0-11	0-64++	0-23	1-00	0-37++	0-51++	0-31+
	NODULE WEIGHT 2	0-43++	-0-29+	0-04	0-48++	0-75++	1-00	-0-10	-0-13	
	PLANT HEIGHT	0-36++	0-56++	0-24	0-08	0-05	0-51++	0-10	1-00	0-38++
	LOGGING	0-01	0-35++	0-08	0-07	-0-12	0-31+	-0-13	0-38++	1-00
	SHATTER	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00
	PLANTS HARVEST	0-04	0-12	0-04	-0-05	-0-19	-0-02	-0-24	0-03	0-17
	PODS PER PLANT	0-01	0-31+	0-41++	-0-05	0-07	0-09	-0-02	0-19	0-30+
	100 SEED WEIGHT	0-72++	-0-49++	0-07	0-35++	0-57++	0-08	0-47++	-0-07	-0-15
	QUALITY OF SEED	0-44++	-0-36++	0-29+	0-21	0-51++	-0-03	0-42++	-0-12	-0-14

TABLE 103 EXPERIMENT 186 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	268.50	8.40	20.80	4.00	40.6	21.5
15	COLUMBUS	1.00	270.00	7.90	19.51	2.50	41.5	22.1
12	DAVIS	1.00	314.00	10.20	19.77	2.50	41.8	20.9
4	RANSOM	1.00	315.75	8.30	20.06	3.00	39.1	24.3
16	ESSEX	1.00	279.00	9.95	18.03	3.25	41.8	20.9
3	BRAGG	1.00	298.75	7.22	19.64	2.00	39.4	23.0
8	BOSSIER	1.00	249.75	7.97	19.33	2.75	43.4	20.8
9	WILLIAMS	1.00	294.75	6.87	18.96	1.75	39.7	22.5
6	PICKETT '71	1.00	264.75	10.43	17.00	2.25	39.3	22.3
5	HILL	1.00	337.50	8.42	15.58	1.75	37.8	21.1
11	COBB	1.00	293.00	9.97	16.37	2.00	38.2	22.4
10	CLARK 63	1.00	328.25	6.95	17.01	2.25	36.7	23.1
14	FORREST	1.00	306.75	7.07	14.80	1.75	39.8	21.5
13	IMPROVED PELICAN	1.00	256.25	9.67	13.23	1.25	41.9	21.4
2	WOODWORTH	1.00	269.25	5.50	15.69	1.75	39.4	21.2
7	CUTLER 71	1.00	229.75	8.75	18.85	2.50	39.1	23.1
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD	KG/HA	0.00	0.04	0.01	0.72++	0.44++		
DAYS TO FLOWER		0.00	0.12	0.31+	-0.49++	-0.36++		
DAYS TO MATURITY		0.00	0.04	0.41++	0.07	0.29+		
NODULE NUMBER 1		0.00	-0.05	-0.05	0.35++	0.21		
NODULE NUMBER 2		0.00	-0.19	0.07	0.57++	0.51++		
NODULE WEIGHT 1		0.00	-0.02	-0.09	0.08	-0.03		
NODULE WEIGHT 2		0.00	-0.24	-0.02	0.47++	0.42++		
PLANT HEIGHT		0.00	0.03	0.19	-0.07	-0.12		
LODGING		0.00	0.17	0.30+	-0.15	-0.14		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.14	1.00	-0.05	-0.13	
PODS PER PLANT		0.00	-0.14	1.00	0.01	0.12		
100 SEED WEIGHT		0.00	-0.05	0.01	1.00	0.55++		
QUALITY OF SEED		0.00	-0.13	0.12	0.55++	1.00		

TABLE 104 EXPERIMENT 367

YEAR 1976

REGION - ASIA
 SITE - JOYDEVPUR
 LATITUDE - 24 DEG. N
 COOPERATORS - A. SOBHAN, M.Z. HOQUE.
 PLANTED - OCTOBER 15, 1976
 SOIL TYPE - SAND 26%, SILT 44%, CLAY 30%. PH 7.7
 FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
 AMOUNT OF MOISTURE - 2829 MM
 NUMBER OF IRRIGATIONS - 5 (2286 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/H.A	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	PLANT HEIGHT	LODGING
9 BOSSIER	3155.15	28.00	88.00	54.00	78.50	0.27	1.33	30.65	1.00	
10 WILLIAMS	2820.84	31.00	84.00	58.50	88.50	0.31	1.41	38.95	1.00	
2 WOODWORTH	2787.75	31.00	80.00	35.75	46.00	0.16	0.94	40.99	1.00	
11 CLARK 63	2712.95	30.00	89.00	38.00	53.75	0.16	1.05	39.14	1.00	
13 DAVIS	2655.58	29.00	89.00	49.25	70.50	0.23	1.22	41.18	1.00	
15 FORREST	2623.79	25.00	84.00	25.50	46.75	0.10	0.82	42.74	1.00	
1 CALLAND	2617.62	28.00	87.00	31.25	40.00	0.12	0.80	38.81	1.00	
14 IMPROVED PELICAN	2602.62	31.00	90.00	35.50	58.75	0.16	1.13	51.39	1.00	
6 PICKETT 71	2565.51	27.00	87.00	30.25	42.75	0.12	0.91	30.98	1.00	
7 CUTLER 71	2555.67	29.00	87.00	51.25	63.75	0.24	1.23	48.04	1.00	
3 BRAGG	2439.58	27.00	87.00	44.00	53.75	0.19	1.04	33.00	1.00	
4 RANSOM	2419.20	26.00	87.00	64.75	80.75	0.29	1.26	41.28	1.00	
12 COBB	2402.46	26.00	88.00	54.50	83.75	0.26	1.35	29.33	1.00	
16 COLUMBUS	2364.37	29.00	90.00	59.25	91.50	0.31	1.43	42.92	1.00	
5 HILL	2303.62	29.00	90.00	42.00	58.75	0.17	1.12	36.00	1.00	
8 JUPITER	1953.62	41.00	98.75	46.00	58.25	0.20	1.13	48.73	3.00	
200 GRAND MEAN	2561.27	29.19	87.86	44.98	63.52	0.20	1.13	39.63	1.13	
STANDARD ERROR OF A VARIETY MEAN	6.13	0.00	0.06	0.97	0.86	0.01	0.02	0.16	0.00	
COEFFICIENT OF VARIATION	0.48%	0.00%	0.14%	4.33%	2.71%	12.32%	3.27%	0.81%	0.00%	
5% 1ST VARIETY MEANS (*****=NS)	17.47	0.00	0.18	2.78	2.45	0.04	0.05	0.45	0.00	
CORRELATIONS										
(+ - PROB=.05) PROB=.01)
YIELD KG/H.A	1.00	-0.40++	-0.64++	-0.07	0.04	0.03	0.01	-0.29+	-0.61++	
DAYS TO FLOWER	-0.40++	1.00	0.63++	0.03	-0.05	0.03	0.10	0.52++	0.86++	
DAYS TO MATURITY	-0.64++	0.63++	1.00	0.16	0.12	0.10	0.23	0.28+	0.74++	
NODULE NUMBER 1	-0.07	0.03	0.16	1.00	0.91++	0.95++	0.90++	-0.05	0.02	
NODULE NUMBER 2	0.04	-0.05	0.12	0.91++	1.00	0.91++	0.96++	-0.07	-0.08	
NODULE WEIGHT 1	0.03	0.03	0.10	0.95++	0.91++	1.00	0.90++	-0.04	-0.02	
NODULE WEIGHT 2	0.01	0.10	0.23	0.90++	0.96++	0.90++	1.00	-0.02	-0.00	
PLANT HEIGHT	-0.29+	0.52++	0.28+	-0.05	-0.07	-0.04	-0.02	1.00	0.37++	
LOGGING	-0.61++	0.86++	0.74++	0.02	-0.08	-0.02	-0.00	0.37++	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.31+	-0.34++	-0.20	0.13	0.13	0.08	0.15	-0.40++	-0.27+	
PLANT PODS PER	0.26+	0.12	0.01	0.03	0.08	0.14	0.33++	0.02	-0.50++	
100 SEED WEIGHT	0.35++	-0.34++	-0.25+	0.39+	0.30+	0.40++	0.34++	-0.55++	0.37++	
QUALITY OF SEED	-0.61++	0.86++	0.74++	0.02	-0.08	-0.02	-0.00	0.00	1.00	

TABLE 104 EXPERIMENT 367 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9 BOSSIER	1.00	217.00	20.08	14.00	1.00
10 WILLIAMS	1.00	181.50	19.15	14.03	1.00
2 WOODWORTH	1.00	174.75	16.30	13.63	1.00
11 CLARK 63	1.00	177.25	17.75	14.02	1.00
13 DAVIS	1.00	219.25	13.93	14.03	1.00
15 FORREST	1.00	187.75	17.85	12.41	1.00
1 CALLAND	1.00	130.75	15.13	14.01	1.00
14 IMPROVED PELICAN	1.00	176.75	23.00	13.00	1.00
6 PICKETT 71	1.00	188.50	16.88	14.02	1.00
7 CUTLER 71	1.00	176.25	19.05	14.00	1.00
3 BRAGG	1.00	198.25	16.35	14.04	1.00
4 RANSOM	1.00	200.00	18.03	13.63	1.00
12 COBB	1.00	202.75	15.35	14.01	1.00
16 COLUMBUS	1.00	119.50	15.75	14.00	1.00
5 HILL	1.00	200.75	14.95	13.58	1.00
8 JUPITER	1.00	149.25	17.48	12.71	2.00
GRAND MEAN	1.00	181.27	17.31	13.69	1.06
STANDARD ERROR OF A VARIETY MEAN	0.00	8.01	0.92	0.02	0.00
COEFFICIENT OF VARIATION	0.00%	8.83%	10.62%	0.24%	0.00%
5% LSD VARIETY MEANS (*****=NS)	0.00	22.81	2.62	0.05	0.00
C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.01)			
YIELD KG/HA	0.00	0.31+	0.26+	0.35++	-0.61++
DAYS TO FLOWER	0.00	-0.34++	0.12	-0.34++	0.86++
DAYS TO MATURITY	0.00	-0.20	0.01	-0.25+	0.74++
NODULE NUMBER 1	0.00	0.13	0.03	0.39++	0.02
NODULE NUMBER 2	0.00	0.13	0.08	0.30+	-0.08
NODULE WEIGHT 1	0.00	0.08	0.08	0.40++	-0.02
NODULE WEIGHT 2	0.00	0.15	0.14	0.34++	-0.00
PLANT HEIGHT	0.00	-0.40++	0.33++	-0.55++	0.37++
LODGING	0.00	-0.27+	0.02	-0.50++	1.00++
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.05	0.10	-0.27+
PODS PER PLANT	0.00	0.05	1.00	-0.26+	0.02
100 SEED WEIGHT	0.00	0.10	-0.26+	1.00	-0.50++
QUALITY OF SEED	0.00	-0.27+	0.02	-0.50++	1.00

TABLE 105 EXPERIMENT 154

YEAR 1976

REGION - ASIA
 SITE - KASHIMPUR
 LATITUDE - 24 DEG. N
 COOPERATORS - A. SOBHAN, M.Z. HOQUE, P.R. HOBBS
 DATE PLANTED - JANUARY 22, 1977 DATE HARVESTED - MAY, 1977
 SOIL TYPE - SAND 1.5%, SILT 37%, CLAY 61.5% PH 5.0
 FERTILIZER USED (KG/HA) - N 20.0, P 26.4, K 33.2
 AMOUNT OF MOISTURE - 520 MM
 NUMBER OF IRRIGATIONS - 3 (76 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER		NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODDING
					NUMBER 1	NUMBER 2				
15	COLUMBUS	1720.00	33.75	98.00	16.00	22.25	0.06	0.23	34.73	1.00
7	CUTLER 71	1650.00	31.50	101.00	16.50	22.25	0.06	0.24	32.86	1.00
12	FORREST	1640.00	34.50	106.75	14.75	20.00	0.05	0.22	41.44	1.25
6	PICKETT 71	1640.00	40.00	97.75	18.50	25.25	0.07	0.28	31.37	1.00
9	WILLIAMS	1610.00	36.75	101.00	19.50	24.50	0.07	0.26	33.17	1.25
14	BEESON	1605.00	37.75	101.25	15.50	21.00	0.06	0.22	42.12	1.00
8	BOSSIER	1600.00	35.25	106.75	17.75	24.75	0.29	0.25	29.96	1.25
10	CLARK 63	1595.00	36.50	106.75	14.50	21.00	0.06	0.23	42.40	1.00
4	RANSOM	1545.00	40.00	107.50	17.50	24.00	0.31	0.26	39.06	1.75
16	ESSEX	1535.00	37.75	106.75	15.50	20.75	0.06	0.21	41.11	1.25
1	CALLAND	1465.00	36.50	106.00	14.75	19.75	0.06	0.20	44.52	1.00
11	DAVIS	1455.00	34.75	97.50	16.50	23.50	0.06	0.26	36.68	1.25
5	HILL	1445.00	34.50	98.50	15.25	20.50	0.05	0.22	32.80	1.50
13	WELLS	1425.00	32.75	100.75	19.75	28.50	0.07	0.28	45.20	1.25
3	BRAGG	1385.00	31.00	100.50	14.00	19.25	0.04	0.20	29.91	1.00
2	WOODWORTH	1220.00	34.75	97.50	13.75	18.25	0.04	0.19	43.03	1.00
		GRAND MEAN	1533.44	35.50	102.14	16.25	22.22	0.09	0.23	37.52
		STANDARD ERROR OF A VARIETY MEAN	149.61	0.30	0.37	2.76	3.32	0.09	0.03	1.17
		COEFFICIENT OF VARIATION	19.51%	1.67%	0.72%	33.98%	29.88%	19.13%	29.89%	0.18
		5% LSD VARIETY MEANS (*****NS)	*****	0.84	1.05	*****	*****	*****	*****	3.58 *** *****
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA	-0.10	0.11	0.12	0.16	0.13	0.10	0.07	-0.03	-0.11	
DAYS TO FLOWER	0.11	-0.00	0.31+	0.12	0.11	-0.16	0.13	0.17	0.15	
DAYS TO MATURITY	0.12	0.31+	-0.00	-0.04	-0.02	0.20	-0.04	0.29+	0.17	
NODULE NUMBER 1	0.16	0.12	-0.04	1.00	0.93++	0.98++	0.91++	0.05	-0.13	
NODULE NUMBER 2	0.13	0.11	-0.02	0.93++	1.00	0.49++	0.97++	0.02	-0.08	
NODULE WEIGHT 1	0.10	0.16	0.20	0.48++	0.49++	1.00	0.53++	-0.02	0.14	
NODULE WEIGHT 2	0.07	0.13	-0.04	0.91++	0.97++	0.53++	1.00	-0.02	-0.06	
PLANT HEIGHT	-0.03	0.17	0.29+	0.05	0.02	-0.02	0.02	1.00	-0.08	
LODDING	-0.11	0.15	0.17	-0.13	-0.08	0.14	-0.06	-0.08	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.57++	0.03	0.04	0.16	0.21	-0.03	0.22	-0.01	-0.02	
PODS PER PLANT	0.60++	0.06	0.12	-0.02	-0.06	0.17	-0.06	-0.12	-0.03	
100 SEED WEIGHT	0.05	0.11	0.17	-0.08	-0.12	-0.08	-0.09	-0.05	-0.01	
QUALITY OF SEED	-0.08	-0.06	-0.10	-0.17	-0.13	-0.16	-0.15	-0.15	0.15	

TABLE 105 EXPERIMENT 154 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	COLUMBUS	1.00	192.25	24.75	13.23	2.50
7	CUTLER 71	1.00	186.00	22.00	13.26	3.50
12	FORREST	1.00	179.50	23.00	13.11	3.50
6	PICKETT 71	1.00	175.50	21.00	13.15	3.50
9	WILLIAMS	1.00	177.25	21.75	13.20	4.25
14	BEESON	1.00	186.50	20.25	14.36	3.50
8	BOSSIER	1.00	163.50	22.00	13.16	2.75
10	CLARK 63	1.00	179.25	22.00	13.28	2.75
4	RANSOM	1.00	169.75	24.25	13.09	3.25
16	ESSEX	1.00	171.25	19.50	13.18	3.75
1	CALLAND	1.00	176.25	18.25	13.14	3.00
11	DAVIS	1.00	163.75	19.50	13.09	3.50
5	HILL	1.00	174.75	19.25	14.05	3.50
13	WELLS	1.00	168.75	16.50	12.95	3.25
3	BRAGG	1.00	163.25	20.25	13.21	4.25
2	WOODWORTH	1.00	149.50	20.25	13.07	3.50
	STANDARD ERROR OF A VARIETY MEAN	0.00	8.59	1.84	0.01	0.49
	COEFFICIENT OF VARIATION	0.00%	9.90%	17.61%	0.12%	29.19%
	5% LSE VARIETY MEANS (**NS=NS)	0.00	*****	*****	0.02	*****

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.00	0.57++	0.60++	0.05	-0.08
DAYS TO FLOWER	0.00	0.03	0.06	0.11	-0.06	
DAYS TO MATURITY	0.00	0.04	0.12	-0.17	-0.10	
NODULE NUMBER 1	0.00	0.16	-0.02	-0.08	-0.4	
NODULE NUMBER 2	0.00	0.21	-0.06	-0.12	-0.13	
NODULE WEIGHT 1	0.00	-0.03	0.17	-0.08	-0.25+	
NODULE WEIGHT 2	0.00	0.22	-0.06	-0.09	-0.16	
PLANT HEIGHT	0.00	-0.01	-0.12	-0.05	-0.15	
LODGING	0.00	-0.02	-0.03	-0.01	0.15	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.28+	0.22	-0.03	
PODS PER PLANT	0.00	0.28+	1.00	-0.05	-0.14	
100 SEED WEIGHT	0.00	0.22	-0.05	1.00	0.04	
QUALITY OF SEED	0.00	-0.03	-0.14	0.04	1.00	

TABLE 106 EXPERIMENT 50 YEAR 1976

REGION - ASIA
 SITE - MYMENSINGH
 LATITUDE - 24 DEG. N
 COOPERATORS - A.J. MIAH, B.H. SIKDER.
 DATE PLANTED - NOVEMBER 3, 1976
 SOIL TYPE - SAND 10.14%, SILT 65.51%, CLAY 24.35%.
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 COUNTRY - BANGLADESH
 ELEVATION - 18 M
 LONGITUDE - 90 DEG. E
 A. MANSUR
 DATE HARVESTED - FEBRUARY, 1977
 PH 6.8

TABLE 106 EXPERIMENT 50 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8 BOSSIER	1.00	247.25	11.35	12.69	3.00	44.2	16.1	
4 RANSOM	1.00	263.50	9.65	13.06	3.00	41.7	17.2	
12 DAVIS	1.00	255.00	9.70	13.41	3.00	43.0	18.0	
16 ESSEX	1.00	262.00	11.58	12.02	3.00	43.7	16.2	
14 FORREST	1.00	257.00	10.83	12.56	3.00	38.7	18.6	
3 BRAGG	1.00	272.75	8.72	13.80	3.00	43.3	16.6	
15 COLUMBUS	1.00	248.00	9.97	14.28	3.00	46.3	15.8	
11 COBB	1.00	265.25	9.47	13.98	3.00	40.9	16.5	
5 HILL	1.00	255.00	12.98	9.64	3.00	40.5	17.7	
6 PICKETT 71	1.00	248.75	9.62	11.21	3.00	41.6	17.7	
1 CALLAND	1.00	272.00	7.80	14.25	3.00	44.5	16.8	
10 CLARK 63	1.00	256.25	8.42	12.33	3.00	44.3	16.2	
9 WILLIAMS	1.00	243.00	7.25	14.58	3.00	43.4	17.4	
2 WOODWORTH	1.00	267.50	8.40	12.54	3.00	43.0	16.9	
7 CUTLER 71	1.00	272.25	9.45	13.77	3.00	43.8	16.6	
13 IMPROVED PELICAN	1.00	233.25	11.48	11.01	3.00	46.7	15.4	
GRAND MEAN	1.00	257.42	9.79	12.82	3.00			
STANDARD ERROR OF A VARIETY MEAN	0.00	10.10	0.59	0.12	0.00			
COEFFICIENT OF VARIATION	0.00%	7.85%	12.12%	1.93%	0.00%			
5% LSD VARIETY MEANS (*****=NS)	0.00	*****	1.69	0.35	0.00			
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.26*	0.44++	0.07	0.00		
DAYS TO FLOWER	0.00	-0.22	0.55++	-0.45++	0.00			
DAYS TO MATURITY	0.00	-0.15	0.03	0.02	0.00			
NODULE NUMBER 1	0.00	-0.09	-0.02	0.09	0.00			
NODULE NUMBER 2	0.00	0.17	-0.15	0.30+	0.00			
NODULE WEIGHT 1	0.00	0.12	-0.15	0.43++	0.00			
NODULE WEIGHT 2	0.00	0.06	0.00	0.20	0.00			
PLANT HEIGHT	0.00	0.13	0.44++	-0.16	0.00			
LODGING	0.00	0.00	0.00	0.00	0.00			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.13	0.19	0.00			
PODS PER PLANT	0.00	-0.13	1.00	-0.56++	0.00			
100 SEED WEIGHT	0.00	0.19	-0.56++	1.00	0.00			
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00			

TABLE 107 EXPERIMENT 153 YEAR 1976

REGION - ASIA
 SITE - PABNA
 LATITUDE - 24 DEG. 3 MIN. N. LONGITUDE - 89 DEG. 15 MIN. E
 COOPERATORS - M.A.H. SARKER, E. WAIFZIGER
 DATE PLANTED - JANUARY 7, 1977 DATE HARVESTED - MAY, 1977
 SOIL TYPE - SAND 26.34%, SILT 40.70%, CLAY 32.96%. PH 7.7
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 360 MM
 NUMBER OF IRRIGATIONS - 1 (50 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER NUMBER	Maturity Number	Days to maturity	Nodule number 1	Nodule number 2	Nodule weight 1	Nodule weight 2	Plant height	Lodging
11	DAVIS	2907.66	57.00	119.25	117.25	125.25	0.00	2.01	60.95	3.50	
16	ESSEX	2760.14	48.25	116.25	88.50	165.50	0.00	2.48	45.50	1.50	
15	COLUMBUS	2740.96	40.25	113.75	103.25	0.00	2.57	51.70	1.75		
12	FORREST	2718.88	55.50	117.75	100.75	166.75	0.00	2.15	72.45	3.25	
7	CUTLER 71	2519.25	41.50	111.25	96.50	199.50	0.00	2.39	51.25	1.75	
5	HILL	2285.87	56.75	117.00	75.25	80.00	0.00	1.27	56.35	3.25	
1	CALLAND	2279.62	40.00	111.25	88.75	102.25	0.00	1.51	50.60	2.25	
3	BRAGG	2217.94	47.00	114.25	63.50	193.00	0.00	2.34	41.60	1.00	
9	WILLIAMS	2208.36	40.25	105.00	88.75	143.00	0.00	1.82	43.50	1.25	
4	RANSON	2132.09	40.25	109.25	79.00	144.50	0.00	1.38	29.00	1.00	
2	WOODWORTH	2044.99	40.50	102.50	74.25	63.50	0.00	1.01	41.90	1.00	
10	CLARK 63	2012.90	40.00	110.00	69.25	93.75	0.00	1.21	45.25	2.25	
8	BOSSIER	2007.90	40.75	111.25	80.25	125.00	0.00	2.02	30.70	1.00	
14	BEESON	1977.66	41.25	101.75	68.00	94.00	0.00	1.27	41.60	1.25	
16	PICKETT 71	1665.75	42.25	113.00	67.75	94.25	0.00	1.01	29.85	1.00	
6	WELLS	1587.82	40.50	100.00	70.25	92.00	0.00	0.91	32.10	1.00	
GRAND MEAN											
STANDARD ERROR OF A VARIETY MEAN											
COEFFICIENT OF VARIATION											
5% LST VARIETY MEANS (*****=NS)											
(* - PROB=.05 ** - PROB=.01)											
CORRELATIONS											
(* - PROB=.05 ** - PROB=.01)											
YIELD	KG/HA	1.00	0.43++	0.57++	0.47++	0.51++	0.00	0.56++	0.65++	0.47++	
DAYS TO	FLOWER	0.43++	1.00	0.69++	0.19	0.08	0.00	0.21	0.04++	0.66++	
DAYS TO	MATURITY	0.57++	0.69++	1.00	0.24	0.32++	0.00	0.45++	0.53++	0.54++	
NODULE	NUMBER 1	0.47++	0.19	0.24	1.00	0.35++	0.00	0.34++	0.38++	0.34++	
NODULE	NUMBER 2	0.51++	0.08	0.32++	0.35++	1.00	0.00	0.86++	0.20	0.09	
NODULE	WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
NODULE	WEIGHT 2	0.56++	0.21	0.45++	0.34++	0.86++	0.00	1.00	0.30+	0.19	
PLANT	HEIGHT	0.65++	0.64++	0.53++	0.38++	0.20	0.00	0.30+	1.00	0.77++	
PLANT	LODGING	0.47++	0.66++	0.54++	0.34++	0.09	0.00	0.19	0.77++	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS	HARVEST	-0.07	0.19	-0.29+	-0.06	-0.36++	0.00	-0.32++	0.19	0.18	
PODS PER	PLANT	0.48++	0.73++	0.73++	0.40++	0.23	0.00	0.38++	0.53++	0.55++	
100 SEED	WEIGHT	0.31+	-0.31+	-0.00	0.21	0.36++	0.00	0.36++	0.06	-0.03	
QUALITY	OF SEED	0.37++	0.49++	0.32+	0.17	-0.01	0.00	0.16	0.55++	0.51++	

TABLE 107 EXPERIMENT 153 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	DAVIS	0.00	325.75	23.43	16.85	4.50	43.1 22.2
16	ESSEX	0.00	277.00	20.48	16.13	5.00	46.5 20.3
15	COLUMBUS	0.00	271.75	16.40	18.85	4.00	45.2 21.9
12	FORREST	0.00	296.50	21.25	15.30	4.75	45.1 19.1
7	CUTLER 71	0.00	250.50	13.75	17.80	4.00	44.2 22.7
5	HILL	0.00	331.00	18.65	15.00	5.00	41.5 20.2
1	CALLAND	0.00	302.50	14.40	20.00	4.75	44.3 22.1
3	BRAGG	0.00	291.00	15.15	18.75	3.25	45.1 22.4
9	WILLIAMS	0.00	313.00	12.45	18.83	2.75	42.5 24.4
4	RANSOM	0.00	297.75	12.68	17.25	2.75	42.2 24.0
2	WOODWORTH	0.00	315.50	11.05	16.30	3.25	41.8 24.6
10	CLARK 63	0.00	309.75	12.00	17.43	3.50	41.3 24.7
8	BOSSIER	0.00	238.00	13.98	16.28	2.75	45.0 21.7
14	BEESON	0.00	316.25	11.60	18.48	4.50	45.9 21.0
6	PICKETT 71	0.00	238.25	15.50	15.25	2.75	44.1 22.4
13	WELLS	0.00	356.75	9.37	13.80	4.00	41.2 24.8
GRAND MEAN							
STANDARD ERROR OF A VARIETY MEAN							
COEFFICIENT OF VARIATION							
5% LSD VARIETY MEANS (*****=NS)							

CORRELATIONS
 STANDARD ERROR OF A VARIETY MEAN
 COEFFICIENT OF VARIATION
 5% LSD VARIETY MEANS (*****=NS)

		(+ - PROB=.05	(+ + - PROB=.01)
YIELD	KG/HA	0.00	-0.07
DAYS TO FLOWER	0.00	-0.19	0.48++
DAYS TO MATURITY	0.00	-0.29+	0.73++
NODULE NUMBER 1	0.00	-0.06	0.40++
NODULE NUMBER 2	0.00	-0.36++	0.23
NODULE WEIGHT 1	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	-0.32++	0.38++
PLANT HEIGHT	0.00	0.19	0.53++
LODGING	0.00	0.18	0.55++
SHATTER	1.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.14
PODS PER PLANT	0.00	-0.14	1.00
100 SEED WEIGHT	0.00	-0.15	-0.10
QUALITY OF SEED	0.00	0.27+	0.43++

TABLE 108 EXPERIMENT 181

YEAR 1976

REGION - ASIA
 SITE - JABALPUR
 LATITUDE - 23 DEG. 10 MIN. N
 COOPERATORS - S. M. SHARMA, S. K. MEHTA
 DATE PLANTED - JULY 19, 1976
 SOIL TYPE - CLAY LOAM, PH 7.3
 FERTILIZER USED (KG/HA) - N 11.25, P 4.80
 AMOUNT OF MOISTURE - 926 MM
 LOCAL VARIETY - J.S.2

COUNTRY - INDIA
 ELEVATION - 393 M
 LONGITUDE - 79 DEG. 57 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING										
					COBB	WILLIAMS	IMPROVED PELICAN	RANSOM	BOSSIER	DAVIS	J.S.2	CLARK 63	PICKETT 71	ESSEX	FORREST	WOODWORTH	HILL	COLUMBUS	BRAGG	CALLAND
11		1264.91	37.75	91.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.05	0.00	0.00	0.00	0.00	0.00	0.00
9		1247.05	25.50	79.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.90	0.00	0.00	0.00	0.00	0.00	0.00
13		1172.64	40.25	89.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.15	0.00	0.00	0.00	0.00	0.00	0.00
4		1169.67	34.75	90.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.35	0.00	0.00	0.00	0.00	0.00	0.00
8		1065.50	35.00	86.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.80	0.00	0.00	0.00	0.00	0.00	0.00
12		1035.73	37.75	86.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.45	0.00	0.00	0.00	0.00	0.00	0.00
7		1017.88	36.00	80.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.65	0.00	0.00	0.00	0.00	0.00	0.00
10		1011.92	26.25	79.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.10	0.00	0.00	0.00	0.00	0.00	0.00
6		988.11	34.25	85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.85	0.00	0.00	0.00	0.00	0.00	0.00
16		982.16	33.75	82.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.25	0.00	0.00	0.00	0.00	0.00	0.00
14		934.54	34.75	89.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.05	0.00	0.00	0.00	0.00	0.00	0.00
2		934.54	29.75	80.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.60	0.00	0.00	0.00	0.00	0.00	0.00
5		916.68	36.50	81.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.95	0.00	0.00	0.00	0.00	0.00	0.00
15		877.99	30.25	79.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.65	0.00	0.00	0.00	0.00	0.00	0.00
3		836.33	35.25	85.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.20	0.00	0.00	0.00	0.00	0.00	0.00
1		738.11	26.25	78.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.15	0.00	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		1012.11	33.38	83.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.57	0.00	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		92.90	0.49	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.82	0.00	0.00	0.00	0.00	0.00	0.00
COEFFICIENT OF VARIATION		18.36%	2.91%	3.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	15.85%	0.03	0.00	0.00	0.00	0.00	0.00
5% LSD VARIETY MEANS (*****=NS)		264.62	1.38	4.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
C O R R E L A T I O N S												(+ - PROB=.05	++ - PROB=.01)							
YIELD KG/HA																				
DAYS TO FLOWER												0.28+	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
DAYS TO MATURITY												0.62++	0.00	0.00	0.00	0.32++	0.00	0.00	0.00	0.00
NODULE NUMBER 1												0.62++	1.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
NODULE NUMBER 2												0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1												0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2												0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT												0.32++	0.02	0.00	0.00	1.00	0.00	0.00	0.00	0.00
LODGING												0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
SHATTER												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST												0.16	0.24	0.00	0.00	0.07	0.00	0.00	0.00	0.00
PODS PER PLANT												0.24	0.25+	0.00	0.00	0.48++	0.00	0.00	0.00	0.00
100 SEED WEIGHT												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 108 EXPERIMENT 181 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	COBB	0.00	189.50	14.55	0.00	0.00
9	WILLIAMS	0.00	177.00	10.05	0.00	0.00
13	IMPROVED PELICAN	0.00	195.00	17.10	0.00	0.00
4	RANSOM	0.00	199.50	10.70	0.00	0.00
8	BOSSIER	0.00	159.25	13.90	0.00	0.00
12	DAVIS	0.00	191.50	10.35	0.00	0.00
7	J.S.2	0.00	152.50	16.50	0.00	0.00
10	CLARK 63	0.00	172.75	9.30	0.00	0.00
6	PICKETT 71	0.00	190.50	11.65	0.00	0.00
16	ESSEX	0.00	178.50	12.70	0.00	0.00
14	FORREST	0.00	204.50	10.00	0.00	0.00
2	WOODWORTH	0.00	182.50	7.20	0.00	0.00
5	HILL	0.00	195.50	11.40	0.00	0.00
15	COLUMBUS	0.00	186.25	9.50	0.00	0.00
3	BRAGG	0.00	180.50	15.15	0.00	0.00
1	CALLAND	0.00	171.50	8.45	0.00	0.00
	GRAND MEAN	0.00	182.92	11.78	0.00	0.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	14.21	1.23	0.00	0.00
	COEFFICIENT OF VARIATION	0.00%	15.54%	20.84%	0.00%	0.00%
	5% LSD VARIETY MEANS (**=*****=NS)	0.00	*****	3.50	0.00	0.00
	C O R R E L A T I O N S	(+ - PROB=.05	+ + - PROB=.01)			
	YIELD	KG/HA	0.00	0.20	0.24	0.00
	DAYS TO FLOWER	0.00	0.16	0.55**+	0.00	0.00
	DAYS TO MATURITY	0.00	0.24	0.25+	0.00	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.07	0.48++	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.17	0.00	0.00
	PODS PER PLANT	0.00	-0.17	1.00	0.00	0.00
	100 SEED WEIGHT	0.00	0.00	1.00	0.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	1.00	

TABLE 109

EXPERIMENT 45

YEAR 1976

REGION - ASIA
 SITE - PANTNAGAR
 LATITUDE - 29 DEG. 5 MIN. N
 COOPERATOR - B.B. SINGH
 DATE PLANTED - JULY 6, 1976
 SOIL TYPE - SANDY LOAM, PH 6.8
 FERTILIZER USED (KG/HA) - N 20.0
 AMOUNT OF MOISTURE - 1272 MM
 LOCAL VARIETY - PK-71-21

COUNTRY - INDIA
 ELEVATION - 243 M
 LONGITUDE - 79 DEG. 3 MIN. E
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB=.05	PROB=.01
7	CUTLER 71	1875.37	48.00	107.00	0.00	0.00	0.00	0.00	58.48	0.00	0.00	0.00
11	COBB	1864.96	48.00	114.00	0.00	0.00	0.00	0.00	68.75	0.00	0.00	0.00
12	DAVIS	1864.96	45.50	102.25	0.00	0.00	0.00	0.00	67.35	0.00	0.00	0.00
2	WOODWORTH	1771.19	36.00	90.00	0.00	0.00	0.00	0.00	68.72	0.00	0.00	0.00
1	CALLAND	1719.09	36.50	90.25	0.00	0.00	0.00	0.00	78.35	0.00	0.00	0.00
14	FORREST	1594.07	38.00	95.75	0.00	0.00	0.00	0.00	62.95	0.00	0.00	0.00
8	PK-71-21	1541.97	44.50	109.50	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00
10	CLARK 63	1531.56	37.00	90.75	0.00	0.00	0.00	0.00	58.03	0.00	0.00	0.00
9	WILLIAMS	1531.56	35.75	90.75	0.00	0.00	0.00	0.00	72.02	0.00	0.00	0.00
6	PICKETT 71	1469.04	40.00	102.75	0.00	0.00	0.00	0.00	56.05	0.00	0.00	0.00
3	BRAGG	1458.62	41.75	106.75	0.00	0.00	0.00	0.00	69.10	0.00	0.00	0.00
5	HILL	1458.62	40.00	90.50	0.00	0.00	0.00	0.00	57.90	0.00	0.00	0.00
15	ESSEX	1437.79	37.50	94.50	0.00	0.00	0.00	0.00	50.53	0.00	0.00	0.00
4	RANSOM	1437.79	39.50	112.25	0.00	0.00	0.00	0.00	66.25	0.00	0.00	0.00
13	IMPROVED PELICAN	1146.06	53.00	109.75	0.00	0.00	0.00	0.00	76.35	0.00	0.00	0.00
210												
CORRELATIONS												
	YIELD KG/HA	1.00	-0.02	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DAY TO FLOWER	-0.02	1.00	0.76++	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00
	DAY TO MATURITY	-0.03	0.76++	1.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.26+	0.12	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00
	PLANTS HARVEST	0.21	-0.16	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PODS PER PLANT	0.16	0.47++	0.49++	0.00	0.00	0.00	0.00	-0.09	0.00	0.00	0.00
	100 SEED WEIGHT	0.23	-0.41++	-0.00	0.00	0.00	0.00	0.00	-0.03	0.00	0.00	0.00
	QUALITY OF SEED	-0.01	-0.49++	-0.56++	0.00	0.00	0.00	0.00	0.33++	0.00	0.00	0.00

TABLE 109 EXPERIMENT 45 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	CUTLER 71	0.00	97.25	76.40	12.51	1.75	--
11	COBB	0.00	107.25	60.83	12.38	2.25	41.0
12	DAVIS	0.00	159.25	62.03	12.38	2.25	42.4
2	WOODWORTH	0.00	97.25	43.35	13.95	3.75	42.9
1	CALLAND	0.00	160.50	39.80	11.14	4.75	44.0
14	FORREST	0.00	130.75	51.63	11.48	2.50	42.6
8	PK-71-21	0.00	101.00	75.85	12.96	2.50	22.1
10	CLARK 63	0.00	113.75	50.25	12.95	2.75	43.5
9	WILLIAMS	0.00	140.75	42.48	13.37	4.00	43.0
6	PICKETT 71	0.00	152.00	53.13	11.35	2.50	44.7
3	BRAGG	0.00	164.75	73.40	13.50	2.25	43.6
5	HILL	0.00	126.75	57.15	11.51	2.75	24.9
15	ESSEX	0.00	134.50	55.48	11.49	2.25	44.2
4	RANSOM	0.00	157.00	50.45	14.65	2.25	43.7
13	IMPROVED PELICAN	0.00	112.75	54.60	8.27	2.50	43.1
	GRAND MEAN	0.00	130.37	56.45	12.26	2.73	
	STANDARD ERROR OF A VARIETY MEAN	0.00	18.68	4.78	0.36	0.28	
	COEFFICIENT OF VARIATION	0.00%	28.66%	16.95%	5.94%	20.43%	
	5% LSE VARIETY MEANS (**=***=NS)	0.00	*****	13.65	1.04	0.80	
	C O R R E L A T I O N S		{+ - PROB=.05	{+ - PROB=.05	+ + - PROB=.01)		
	YIELD KG/HA	0.00	0.21	0.16	0.23	-0.01	
	DAYS TO FLOWER	0.00	-0.16	0.47++	-0.41++	-0.49++	
	DAYS TO MATURITY	0.00	-0.04	0.49++	-0.00	-0.56++	
	ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
	ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
	ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
	PLANT HEIGHT	0.00	0.19	-0.09	-0.03	0.33++	
	LODGING	0.00	0.00	0.00	0.00	0.00	
	SHATTER	1.00	0.00	0.00	0.00	0.00	
	PLANTS HARVEST	0.00	1.00	-0.15	0.03	0.13	
	PODS PER PLANT	0.00	-0.15	1.00	0.07	-0.57++	
	100 SEED WEIGHT	0.00	0.03	0.07	1.00	-0.02	
	QUALITY OF SEED	0.00	0.13	-0.57++	-0.02	1.00	

TABLE 110 EXPERIMENT 18 YEAR 1976

REGION - ASIA
 SITE - MALANG, JAVA
 LATITUDE - 8 DEG. 25 MIN. S
 COOPERATORS - RIWANODJA, SUMARNO
 DATE PLANTED - MAY 5, 1976
 SOIL PH 6.0
 AMOUNT OF MOISTURE - 30 MM
 NUMBER OF IRRIGATIONS - 11
 LOCAL VARIETIES - ORBA, NO. 29

COUNTRY - INDONESIA
 ELEVATION - 335 M
 LONGITUDE - 112 DEG. 5 MIN. E
 DATE HARVESTED - AUGUST, 1976

FERTILIZER USED (KG/HA) - N 50.0, P 44.0, K 41.5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
16	ORBA	1094.39	38.00	83.00	195.50	160.00	0.77	1.45	48.00	2.00
13	IMPROVED PELICAN	910.60	38.00	91.00	115.75	140.75	0.47	1.18	51.25	3.00
11	COBB	810.58	35.00	83.00	141.75	92.00	0.55	0.67	24.25	1.00
10	CLARK 63	568.86	33.00	83.00	72.25	44.50	0.23	0.33	33.00	2.00
15	NO. 29	545.94	50.00	106.00	308.50	171.25	1.35	0.97	69.75	3.00
15	CALLAND	543.86	33.00	91.00	96.50	88.50	0.40	0.65	33.75	2.00
14	FORREST	470.93	36.00	83.00	97.75	80.00	0.25	0.45	30.25	2.00
2	WOODWORTH	423.83	33.00	77.00	90.00	46.00	0.23	0.40	33.00	1.00
3	BRAGG	402.16	36.00	83.00	106.75	73.00	0.33	0.33	26.25	1.00
9	WILLIAMS	372.99	35.00	83.00	166.00	112.25	0.40	0.57	23.75	1.00
5	HILL	364.66	36.00	91.00	100.75	139.00	0.23	0.67	29.50	2.00
12	DAVIS	360.49	35.00	91.00	146.00	189.00	0.43	1.03	26.50	1.00
6	PICKETT 71	262.55	33.00	83.00	141.50	77.50	0.45	0.20	21.75	1.00
8	BOSSIER	258.38	33.00	83.00	136.25	97.25	0.38	0.47	23.00	1.00
4	RANSOM	256.30	35.00	83.00	180.50	136.25	0.35	0.72	22.50	1.00
7	JUPITER	227.96	39.00	106.00	134.00	224.00	0.42	0.87	42.00	1.25
GRAND MEAN										
		492.16	36.13	87.50	139.36	116.95	0.45	0.69	33.66	1.61
STANDARD ERROR OF A VARIETY MEAN										
		66.78	0.35	0.00	23.81	21.31	0.09	0.15	1.62	0.09
COEFFICIENT OF VARIATION										
		27.14%	1.96%	0.00%	34.16%	36.44%	41.06%	44.89%	9.66%	11.64%
5% LST VARIETY MEANS (*****=NS)										
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA										
		1.00	0.19	-0.08	0.16	0.05	0.34++	0.47++	0.45++	
DAYS TO FLOWER										
		0.19	1.00	0.73++	0.58++	0.41++	0.72++	0.38++	0.83++	0.60++
DAYS TO MATURITY										
		-0.08	0.73++	1.00	0.34++	0.58++	0.47++	0.34++	0.64++	0.45++
NODULE NUMBER 1										
		0.16	0.58++	0.34++	1.00	0.40++	0.89++	0.31+	0.44++	0.26+
NODULE NUMBER 2										
		0.05	0.41++	0.58++	0.40++	1.00	0.34++	0.71++	0.37++	0.18
NODULE WEIGHT 1										
		0.34++	0.72++	0.47++	0.89++	0.34++	1.00	0.37++	0.67++	0.42++
NODULE WEIGHT 2										
		0.47++	0.38++	0.34++	0.31+	0.77++	0.37++	1.00	0.50++	0.36++
PLANT HEIGHT										
		0.47++	0.83++	0.64++	0.44++	0.37++	0.67++	1.00	0.50++	0.77++
LOGGING										
		0.45++	0.60++	0.45++	0.26+	0.18	0.42++	0.77++	1.00	
SHATTER										
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST										
		0.31+	0.09	-0.30+	0.23	-0.12	0.20	0.08	0.12	0.30+
PODS PER PLANT										
		0.49++	0.69++	0.43++	0.33++	0.34++	0.56++	0.83++	0.62++	
100 SEED WEIGHT										
		-0.07	-0.73++	-0.50++	-0.40++	-0.31+	-0.25+	-0.67++	-0.55++	
QUALITY OF SEED										
		-0.36++	0.05	0.17	-0.05	0.23	-0.08	0.11	0.07	0.11

TABLE 110 EXPERIMENT 18 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	HARVEST	PODS PER PLANT	WEIGHT OF SEED	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL		
									PLANTS	SEED
16	ORBA	0.00	180.25	28.75	9.75	2.75	40.6	18.6		
13	IMPROVED PELICAN	0.00	181.50	26.00	10.75	2.50	46.3	18.6		
11	COBB	0.00	171.00	15.00	13.75	1.50	39.0	21.4		
10	CLARK 63	0.00	183.00	13.25	12.50	2.75	45.4	19.7		
15	NO. 29	0.00	200.00	32.25	6.00	3.00	49.0	13.5		
1	CALLAND	0.00	179.00	12.75	13.00	3.00	45.3	17.8		
14	FORREST	0.00	199.00	14.00	10.50	3.50	42.6	19.4		
2	WOODWORTH	0.00	185.00	16.50	12.50	2.75	44.5	19.4		
3	BRAGG	0.00	188.50	12.25	12.00	2.50	43.5	19.6		
9	WILLIAMS	0.00	172.50	8.50	14.00	2.75	45.9	19.3		
5	HILL	0.00	162.50	13.75	11.25	3.00	43.5	19.1		
12	DAVIS	0.00	190.50	11.75	12.50	2.75	46.2	18.5		
6	PICKETT 71	0.00	161.75	11.25	12.00	2.75	43.4	20.2		
8	BOSSIER	0.00	174.50	12.00	10.25	3.25	45.1	18.8		
4	RANSOM	0.00	183.50	14.75	12.00	3.00	41.0	21.9		
7	JUPITER	0.00	106.75	18.75	11.00	3.25	44.6	18.6		
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LST VARIETY MEANS (*****=NS)										
CORRELATIONS										
					(+ - PROB=.05		++ - PROB=.01)			
	YIELD	KG/HA	0.00	0.31+	0.49++	-0.07	-0.36++			
	DAYS TO FLOWER	0.00	0.09	0.69++	-0.73++	0.05				
	DAYS TO MATURITY	0.00	-0.30+	0.43++	-0.50++	0.17				
	NODULE NUMBER 1	0.00	0.23	0.33++	-0.40++	-0.05				
	NODULE NUMBER 2	0.00	-0.12	0.34++	-0.31+	0.23				
	NODULE WEIGHT 1	0.00	0.20	0.52++	-0.54++	-0.08				
	NODULE WEIGHT 2	0.00	0.08	0.56++	-0.25+	0.11				
	PLANT HEIGHT	0.00	0.12	0.83++	-0.67++	0.07				
	LODGING	0.00	0.30+	0.62++	-0.55++	0.11				
	SHATTER	1.00	0.00	0.00	0.00	0.00				
	PLANTS HARVEST	0.00	1.00	0.02	-0.11	-0.15				
	PODS PER PLANT	0.00	0.02	1.00	-0.63++	-0.03				
	100 SEED WEIGHT	0.00	-0.11	-0.63++	1.00	-0.28+				
	QUALITY OF SEED	0.00	-0.15	-0.03	-0.28+	1.00				

TABLE III EXPERIMENT 17

YEAR 1976

REGION - ASIA
 COUNTRY - INDONESIA
 SITE - MEDAN
 ELEVATION - 25 M
 LATITUDE - 98 DEG. 41 MIN. E
 COOPERATOR - B.O.P. TAMPUBULON
 DATE PLANTED - MAY 15, 1976
 DATE HARVESTED - AUGUST, 1976
 SOIL TYPE - SAND 39%, SILT 29%, CLAY 32%. PH 5.6
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 1060 MM
 LOCAL VARIETIES - ORBA, SIPERAK

TABLE III EXPERIMENT 17 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	115.00	23.13	14.94	0.00	46.5	22.3
13	IMPROVED PELICAN	1.00	100.00	30.65	10.65	0.00	46.9	23.2
14	FORREST	1.00	92.00	19.85	14.26	0.00	47.1	22.1
11	COBB	1.00	90.00	16.05	15.15	0.00	43.2	24.6
15	ORBA	1.00	90.00	21.80	11.44	0.00	44.2	21.1
8	BOSSIER	1.00	97.00	13.75	15.27	0.00	48.7	22.2
5	HILL	1.00	93.00	14.95	13.09	0.00	43.5	22.9
1	CALLAND	1.00	93.00	11.55	16.93	0.00	46.2	22.7
2	WOODWORTH	1.00	93.00	12.15	14.07	0.00	44.6	23.9
6	PICKETT 71	1.00	94.00	11.85	13.13	0.00	46.8	22.0
3	BRAGG	1.00	92.00	10.63	14.77	0.00	46.9	23.5
4	RANSOM	1.00	95.00	11.78	12.11	0.00	44.8	23.7
12	DAVIS	1.00	90.00	11.40	12.37	0.00	46.9	21.1
16	SUPERAK	1.00	90.00	15.60	8.91	0.00	44.6	18.1
9	WILLIAMS	1.00	96.00	9.10	12.98	0.00	46.0	22.0
10	CLARK 63	1.00	92.00	8.47	12.92	0.00	46.6	23.2
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								

CORRELATIONS

(+- PROB=.05 ++ - PROB=.01)

YIELD KG/HA	0.00	0.52++	0.92++	0.13	0.00
DAYS TO FLOWER	0.00	0.20	0.63++	-0.62++	0.00
DAYS TO MATURITY	0.00	0.73++	0.59++	-0.23	0.00
ODULE NUMBER 1	0.00	0.19	-0.20	0.15	0.00
ODULE NUMBER 2	0.00	0.50++	0.29+	0.10	0.00
ODULE WEIGHT 1	0.00	0.24	-0.02	0.10	0.00
ODULE WEIGHT 2	0.00	0.27+	0.04	0.47++	0.00
PLANT HEIGHT	0.00	0.42++	0.72++	-0.35++	0.00
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.39++	0.19	0.00
PODS PER PLANT	0.00	0.39++	1.00	-0.24	0.00
100 SEED WEIGHT	0.00	0.19	-0.24	1.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	1.00	0.00

TABLE 112 EXPERIMENT 92 YEAR 1976

REGION - ASIA
 SITE - KHAIRANITAR FARM
 LATITUDE - 28 DEG. N
 COOPERATORS - B. THAPA, M.P. BHARATI
 DATE PLANTED - JULY 9, 1976
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HAI) - N 25.0, P 25.0, K 25.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1 WEIGHT	MODULE NUMBER 2 WEIGHT	PLANT HEIGHT	LODGING
							NUMBER 1	NUMBER 2	WEIGHT 1	WEIGHT 2
11	ESSEX	2208.77	75.75	103.25	0.00	0.00	0.00	0.00	44.75	0.00
9	BEESEON	2083.75	77.50	103.25	0.00	0.00	0.00	0.00	48.75	0.00
1	CALLAND	2083.75	71.25	102.00	0.00	0.00	0.00	0.00	49.00	0.00
6	CLARK 63	2083.75	74.25	102.00	0.00	0.00	0.00	0.00	50.75	0.00
4	CUTLER 71	2000.40	76.25	102.25	0.00	0.00	0.00	0.00	53.75	0.00
12	CORSOY	1958.72	78.25	103.25	0.00	0.00	0.00	0.00	31.75	0.00
16	STEELE	1917.05	73.00	101.00	0.00	0.00	0.00	0.00	44.75	0.00
5	WILLIAMS	1917.05	76.25	104.00	0.00	0.00	0.00	0.00	46.50	0.00
10	COLUMBUS	1875.37	71.75	103.50	0.00	0.00	0.00	0.00	42.50	0.00
15	HARK	1875.37	83.00	103.50	0.00	0.00	0.00	0.00	51.25	0.00
8	WELLS	1875.37	76.25	101.50	0.00	0.00	0.00	0.00	40.25	0.00
14	HODGSON	1833.70	76.25	101.50	0.00	0.00	0.00	0.00	31.75	0.00
7	FORREST	1792.02	79.75	101.00	0.00	0.00	0.00	0.00	40.25	0.00
3	HILL	1583.65	77.50	103.00	0.00	0.00	0.00	0.00	53.75	0.00
2	WOODWORTH	1541.97	74.50	102.50	0.00	0.00	0.00	0.00	41.25	0.00
13	AMSOY 71	1500.30	75.25	103.00	0.00	0.00	0.00	0.00	47.00	0.00
GRAND MEAN		1883.19	76.05	102.53	0.00	0.00	0.00	0.00	44.88	0.00
STANDARD ERROR OF A VARIETY MEAN		229.55	2.65	1.19	0.00	0.00	0.00	0.00	5.26	0.00
COEFFICIENT OF VARIATION		24.38%	6.96%	2.32%	0.00%	0.00%	0.00%	0.00%	23.42%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	*****	*****	0.00	0.00	0.00	0.00	*****	*****
CORRELATIONS (+ - PROB=.05 + + - PROB=.01)										
YIELD	KG/HA	1.00	-0.09	-0.14	0.00	0.00	0.00	0.00	-0.01	0.00
DAYS TO FLOWER		-0.09	1.00	0.31+	-0.00	-0.00	-0.00	-0.00	-0.20	-0.00
DAYS TO MATURITY		-0.14	0.31+	1.00	0.00	0.00	0.00	0.03	0.00	0.00
MODULE NUMBER 1		0.00	0.00	0.00	1.00	-0.00	-0.00	0.00	0.00	0.00
MODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.01	-0.20	0.03	0.00	0.00	0.00	0.00	1.00	0.00
PLANT LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		-0.28+	-0.10	0.12	0.00	0.00	0.00	0.00	0.15	0.00
PODS PER PLANT		0.08	-0.09	-0.07	0.00	0.00	0.00	0.00	0.69++	0.00
100 SEED WEIGHT		0.20	-0.09	-0.21	0.00	0.00	0.00	0.00	-0.26+	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 112 EXPERIMENT 92 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	ESSEX	0.00	123.50	9.13	15.25	0.00
9	BEESON	0.00	125.50	9.23	15.50	0.00
1	CALLAND	0.00	125.75	9.75	15.50	0.00
6	CLARK 63	0.00	125.00	8.65	15.50	0.00
4	CUTLER 71	0.00	125.25	9.63	17.50	0.00
12	CORSOY	0.00	125.75	6.67	16.00	0.00
16	STEELE	0.00	124.00	7.30	17.25	0.00
5	WILLIAMS	0.00	124.00	8.77	15.75	0.00
10	COLUMBUS	0.00	125.50	8.32	17.75	0.00
15	HARK	0.00	124.75	9.90	14.25	0.00
8	WELLS	0.00	124.00	7.50	15.00	0.00
14	HODGSON	0.00	123.75	6.70	17.75	0.00
7	FORREST	0.00	124.00	7.80	17.75	0.00
3	HILL	0.00	125.50	9.80	15.00	0.00
2	WOODWORTH	0.00	123.75	8.32	17.00	0.00
13	AMSOY 71	0.00	124.25	8.47	15.00	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS						
		(* - PROB=.05				* - PROB=.01)
217	YIELD KG/HA	0.00	-0.28*	0.08	0.20	0.00
	DAYS TO FLOWER	0.00	-0.10	-0.09	-0.09	0.00
	DAYS TO MATURITY	0.00	0.12	0.07	-0.21	0.00
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.15	0.69**	-0.26*	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	0.13	0.02	0.00
	PODS PER PLANT	0.00	0.13	1.00	-0.18	0.00
	100 SEED WEIGHT	0.00	0.02	-0.18	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	1.00	

TABLE 113 EXPERIMENT 61 YEAR 1976

REGION - ASIA
 SITE - KHUMALTA
 LATITUDE - 27 DEG. 40 MIN. N.
 COOPERATORS - MEENA PANDAY, M.P. BHARATI
 DATE PLANTED - MAY 20, 1976
 SOIL TYPE - CLAY LOAM
 FERTILIZER USED (KG/HA) - N 10.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 740 MM
 LOCAL VARIETY - KHUMAL G.P. 1

TABLE 113 EXPERIMENT 61 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4 RANSOM		3.00	123.00	48.13	20.75	0.00
11 DAVIS		2.00	151.75	47.30	24.75	0.00
6 PICKETT 71		1.00	154.25	39.83	18.50	0.00
3 BRAGG		1.25	135.50	35.35	23.25	0.00
8 BOSSIER		2.00	113.75	60.65	18.00	0.00
12 FORREST		2.00	150.75	32.88	17.50	0.00
16 KHUMAL G.P.1		3.00	167.00	34.28	19.25	0.00
5 HILL		2.00	144.50	47.30	17.75	0.00
2 WOODWORTH		1.75	149.25	25.65	24.00	0.00
15 COLUMBUS		2.00	174.50	28.90	22.75	0.00
9 WILLIAMS		2.00	148.75	19.10	24.50	0.00
7 CUTLER 71		2.00	156.75	21.90	21.75	0.00
10 CLARK 63		2.00	151.50	24.10	20.50	0.00
1 CALLAND		2.00	144.75	22.90	21.25	0.00
14 BEESON		2.00	122.25	11.38	22.50	0.00
13 WELLS		2.00	99.75	11.68	21.00	0.00
STANDARD ERROR OF A VARIETY MEAN		2.00	143.00	31.96	21.13	0.00
COEFFICIENT OF VARIATION		0.09	14.75	4.39	0.43	0.00
5% LSD VARIETY MEANS (*****=NS)		9.13%	20.63%	27.45%	4.09%	0.00%
0.26 *****		0.26	*****	12.49	1.23	0.00
C O R R E L A T I O N S		(+ - PROB=.05	(+ - PROB=.01)			
YIELD KG/HA	-0.13	0.18	0.74++	-0.18	0.00	
DAYS TO FLOWER	0.07	0.05	0.82++	-0.38++	0.00	
DAYS TO MATURITY	-0.06	0.10	0.77++	-0.32+	0.00	
NODULE NUMBER 1	0.14	-0.05	0.20	0.09	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.28+	-0.18	0.31+	0.10	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.28+	0.34++	0.51++	-0.28+	0.00	
LODGING	0.32+	0.05	0.42++	-0.22	0.00	
SHATTER	1.00	0.02	-0.00	-0.09	0.00	
HARVEST	0.02	1.00	-0.13	0.01	0.00	
PLANTS PER PLANT	-0.00	-0.13	1.00	-0.35++	0.00	
100 SEED WEIGHT	-0.09	0.01	-0.35++	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	1.00		

TABLE 114 EXPERIMENT 80 YEAR 1976

REGION - ASIA	COUNTRY - PAKISTAN
SITE - ISLAMABAD	ELEVATION - 526 M
LATITUDE - 34 DEG.	LONGITUDE - 73 DEG. E
COOPERATORS - P.F.	
DATE PLANTED - JULY 17, 1976	DATE HARVESTED - OCTOBER, 1976
SOIL TYPE - SANDY LOAM	
FERTILIZER USED (KG/HA) - N 55.0, P 24.2	
AMOUNT OF MOISTURE - 890 MM	
RANA	

TABLE 114 EXPERIMENT 80 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER HARVEST	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	2.00	0.00	26.46	10.08	0.00
3	BRAGG	1.00	0.00	25.90	11.30	0.00
8	BOSSIER	1.00	0.00	23.18	9.67	0.00
14	BEESON	1.00	0.00	13.31	12.38	0.00
11	DAVIS	1.25	0.00	24.58	11.63	0.00
7	CUTLER 71	1.00	0.00	17.00	13.15	0.00
10	CLARK 63	1.00	0.00	18.69	11.65	0.00
13	WELLS	1.00	0.00	12.32	11.65	0.00
2	WOODWORTH	1.00	0.00	16.41	11.83	0.00
9	WILLIAMS	1.00	0.00	18.81	13.30	0.00
12	FORREST	1.25	0.00	32.20	8.15	0.00
4	RANSON	1.25	0.00	30.75	10.05	0.00
1	CALLAND	1.00	0.00	16.18	11.10	0.00
16	ESSEX	1.00	0.00	23.73	8.58	0.00
15	COLUMBUS	1.00	0.00	18.80	11.23	0.00
5	HILL	1.00	0.00	32.05	9.20	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	-0.05	0.00	-0.02	0.53++	0.00
DAYS TO FLOWER		0.35++	0.00	0.67++	-0.40++	0.00
DAYS TO MATURITY		0.38++	0.00	0.72++	-0.30+	0.00
ODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
ODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.10	0.00	0.60++	0.07	0.00
LODGING		-0.02	0.00	-0.11	0.35++	0.00
SHATTER		1.00	0.00	0.18	-0.19	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.18	0.00	1.00	-0.43++	0.00
100 SEED WEIGHT		-0.19	0.00	-0.43++	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	1.00

TABLE 115 EXPERIMENT 107 YEAR 1976

REGION - ASIA
 SITE - KOTDIJI
 LATITUDE - 27 DEG. N
 COOPERATORS - A. H. CHAUDHRY, K. SHEIKH, M. I. SOOMRO
 DATE PLANTED - JUNE 19, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 7
 LOCAL VARIETY - LOPPA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S	
											(+ - PROB=.05	(+ - PROB=.01)
4	WILLIAMS	1769.94	41.75	93.00	23.25	30.00	0.00	0.00	65.50	0.00		
3	CUTLER 71	1742.01	40.25	91.75	35.50	45.00	0.00	0.00	60.25	0.00		
9	LOPPA	1534.06	44.25	88.50	12.25	21.00	0.00	0.00	71.00	0.00		
5	CLARK 63	1463.21	44.00	97.00	9.00	16.50	0.00	0.00	63.75	0.00		
7	WELLS	1416.12	39.00	87.75	22.75	30.25	0.00	0.00	42.00	0.00		
11	AMSOY 71	1368.61	39.25	94.50	13.75	21.25	0.00	0.00	53.75	0.00		
1	CALLAND	1368.61	42.50	96.00	38.00	48.75	0.00	0.00	59.50	0.00		
2	WOODWORTH	1345.27	42.50	87.50	20.00	30.25	0.00	0.00	55.50	0.00		
13	HARK	1091.05	40.75	88.00	15.00	24.00	0.00	0.00	48.50	0.00		
6	FORREST	1061.46	43.75	97.00	8.50	15.00	0.00	0.00	46.00	0.00		
8	BEESON	1014.79	40.00	97.00	17.00	25.75	0.00	0.00	49.25	0.00		
14	STEELE	943.94	36.00	73.25	8.25	17.25	0.00	0.00	42.50	0.00		
12	HODGSON	896.85	34.25	89.25	10.00	18.75	0.00	0.00	28.25	0.00		
10	CORSOY	754.73	37.50	71.50	29.25	36.50	0.00	0.00	30.75	0.00		
16	ALTONA	730.98	36.75	73.25	11.00	22.25	0.00	0.00	34.25	0.00		
15	SWIFT	683.89	37.00	68.75	2.75	10.25	0.00	0.00	31.25	0.00		
		GRAND MEAN	1199.09	39.97	87.13	17.27	25.80	0.00	0.00	48.88	0.00	
		STANDARD ERROR OF A VARIETY MEAN	157.14	1.34	1.73	7.76	8.15	0.00	0.00	44.27	0.00	
		COEFFICIENT OF VARIATION	26.21%	6.68%	3.96%	89.89%	63.20%	0.00%	0.00%	17.46%	0.00%	
		5% LSD VARIETY MEANS (*****=NS)	447.61	3.80	4.92	*****	*****	0.00	0.00	12.16	0.00	
C O R R E L A T I O N S												
		YIELD KG/HA	1.00	0.31+	0.39++	0.27+	0.27+	0.00	0.00	0.64++	0.00	
		DAYS TO FLOWER	0.31+	1.00	0.45++	0.15	0.15	0.00	0.00	0.50++	0.00	
		DAYS TO MATURITY	0.39++	0.45++	1.00	0.12	0.10	0.00	0.00	0.43++	0.00	
		NODULE NUMBER 1	0.22+	0.15	0.12	1.00	0.99++	0.00	0.00	0.15	0.00	
		NODULE NUMBER 2	0.27+	0.15	0.10	0.99++	1.00	0.00	0.00	0.16	0.00	
		NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
		NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
		PLANT HEIGHT	0.64++	0.50++	0.43++	0.15	0.16	0.00	0.00	1.00	0.00	
		LODDING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	
		SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		PLANTS HARVEST	0.88++	0.32++	0.44++	0.23	0.22	0.00	0.00	-60++	0.00	
		PODS PER PLANT	0.50++	0.23	0.24	0.21	0.25+	0.00	0.00	0.72++	0.00	
		100 SEED WEIGHT	0.16	-0.08	0.11	0.15	0.13	0.00	0.00	0.04	0.00	
		QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

TABLE 115 EXPERIMENT 107 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	WILLIAMS	0.00	150.00	38.25	12.50	0.00
3	CUTLER 71	0.00	158.00	45.25	14.00	0.00
9	LOPPA	0.00	125.00	46.50	10.75	0.00
5	CLARK 63	0.00	117.75	30.00	12.25	0.00
7	WELLS	0.00	135.25	45.25	12.00	0.00
11	AMSOY 71	0.00	110.75	47.75	13.00	0.00
1	CALLAND	0.00	107.25	44.50	12.00	0.00
2	WOODWORTH	0.00	108.50	44.75	12.25	0.00
13	HARK	0.00	94.00	41.00	10.75	0.00
6	FORREST	0.00	86.75	28.25	7.75	0.00
8	BEESON	0.00	74.50	44.75	12.50	0.00
14	STEELE	0.00	66.75	31.75	15.25	0.00
12	HODGSON	0.00	62.75	24.00	11.25	0.00
10	CORSOY	0.00	41.50	25.25	11.50	0.00
16	ALTONA	0.00	35.75	24.25	9.75	0.00
15	SWIFT	0.00	39.50	21.75	9.50	0.00
	GRAND MEAN	0.00	94.63	36.45	11.69	0.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	17.28	5.61	0.82	0.00
	COEFFICIENT OF VARIATION	0.00%	36.52%	30.79%	14.04%	0.00%
	5% LSD VARIETY MEANS (*****=NS)	49.21	15.99	2.34	0.00	
	CO R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.01)			
	YIELD KG/HA	0.00	0.88++	0.50++	0.16	0.00
	DAYS TO FLOWER	0.00	0.32++	0.23	-0.08	0.00
	DAYS TO MATURITY	0.00	0.44++	0.24	0.11	0.00
	NODULE NUMBER 1	0.00	0.23	0.21	0.15	0.00
	NODULE NUMBER 2	0.00	0.22	0.25+	0.13	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.60++	0.72++	0.04	0.00
	LDGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	0.51++	0.18	0.00
	PODS PER PLANT	0.00	0.51++	1.00	-0.02	0.00
	100 SEED WEIGHT	0.00	0.18	-0.02	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 116 EXPERIMENT 47 YEAR 1976

REGION - ASIA
 SITE - KOTDIJI
 LATITUDE - 27 DEG. N
 COOPERATORS - A. H. CHAUDHRY, K. SHEIKH,
 DATE PLANTED - JULY 1, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 7
 SUBSTITUTE VARIETY - HAMPTON 266A
 COUNTRY - PAKISTAN
 ELEVATION - 18 M
 LONGITUDE - 68 DEG. E
 M.I. SOOMRO
 DATE HARVESTED - OCTOBER, 1976

TABLE 116 EXPERIMENT 47 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	184.50	33.00	21.00	0.00
8	BOSSIER	0.00	176.50	58.00	16.00	0.00
11	COBB	0.00	170.00	43.00	13.25	0.00
11	PICKETT 71	0.00	183.50	34.00	14.50	0.00
15	HAMPTON 266A	0.00	169.25	54.50	17.25	0.00
15	BRAGG	0.00	203.75	26.75	15.75	0.00
3	WILLIAMS	0.00	170.75	35.75	11.75	0.00
9	DAVIS	0.00	117.25	29.00	12.50	0.00
12	WOODWORTH	0.00	173.75	36.75	16.00	0.00
2	ESSEX	0.00	151.75	22.50	15.25	0.00
16	CALLAND	0.00	169.75	35.50	12.25	0.00
1	IMPROVED PELICAN	0.00	133.75	76.75	11.75	0.00
13	CUTLER 71	0.00	116.25	34.25	19.00	0.00
7	HILL	0.00	144.25	33.25	10.50	0.00
5	FORREST	0.00	70.75	27.50	13.75	0.00
14	CLARK 63	0.00	99.50	31.25	15.50	0.00
10						
	GRAND MEAN	0.00	152.20	38.23	14.75	0.00
	STANDARD ERROR OF A VARIETY MEAN	0.00	20.58	5.00	0.57	0.00
	COEFFICIENT OF VARIATION	0.00%	27.04%	26.16%	7.73%	0.00%
5*	LSD VARIETY MEANS (*******=NS)	0.00	58.62	14.24	1.62	0.00
	C O R R E L A T I O N S		(+ - PROB=.05	+ + - PROB=.01)		
	YIELD	KG/HA	0.00	0.68**	0.10	0.15
	DAYS TO FLOWER	0.00	0.15	0.26+	-0.01	0.00
	DAYS TO MATURITY	0.00	0.09	0.40+	0.07	0.00
	NODULE NUMBER 1	0.00	0.13	-0.10	-0.09	0.00
	NODULE NUMBER 2	0.00	0.13	-0.13	-0.07	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.26+	0.67++	0.01	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	0.10	0.12	0.00
	PODS PER PLANT	0.00	0.10	1.00	-0.08	0.00
	100 SEED WEIGHT	0.00	0.12	-0.08	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 117

EXPERIMENT 302 YEAR 1976

REGION - ASIA
 SITE - LAHORE
 LATITUDE - 31 DEG. 30 MIN. N
 COOPERATOR - TECHNICAL SERVICES ASSOCIATION
 DATE PLANTED - FEBRUARY 21, 1977
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 18.0, P 46.0
 AMOUNT OF MOISTURE - 175 MM
 NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	CLARK 63	2181.22	40.50	116.00	0.00	0.00	0.00	0.00	63.63	1.00
4	CUTLER 71	2135.98	46.25	121.25	0.00	0.00	0.00	0.00	63.88	1.00
5	WILLIAMS	2062.96	40.25	109.00	0.00	0.00	0.00	0.00	54.25	1.00
10	COLUMBUS	1930.40	44.00	128.25	0.00	0.00	0.00	0.00	67.00	1.00
1	CALLAND	1793.87	43.00	123.00	0.00	0.00	0.00	0.00	57.50	1.00
2	WOODWORTH	1571.62	41.75	106.00	0.00	0.00	0.00	0.00	57.63	1.00
13	AMSOY 71	1494.63	42.00	110.75	0.00	0.00	0.00	0.00	48.38	1.00
14	HODGSON	1466.85	39.25	88.00	0.00	0.00	0.00	0.00	40.00	1.00
9	BEESON	1443.83	43.75	106.75	0.00	0.00	0.00	0.00	46.38	1.00
16	STEELE	1393.03	40.00	88.00	0.00	0.00	0.00	0.00	41.50	1.00
8	WELLS	1139.82	39.25	106.75	0.00	0.00	0.00	0.00	37.00	1.00
12	CORSOY	1135.06	39.75	101.00	0.00	0.00	0.00	0.00	41.00	1.00
15	HARK	885.82	39.75	108.25	0.00	0.00	0.00	0.00	46.38	1.00
11	ESSEX	879.47	48.50	153.00	0.00	0.00	0.00	0.00	73.75	1.00
7	FORREST	757.24	54.75	153.00	0.00	0.00	0.00	0.00	76.13	1.00
3	HILL	534.19	59.00	153.00	0.00	0.00	0.00	0.00	74.75	1.00
STANDARD ERROR OF A VARIETY MEAN		1425.38	43.86	117.00	0.00	0.00	0.00	0.00	55.57	1.00
STANDARD ERROR OF VARIATION		209.11	1.46	1.18	0.00	0.00	0.00	0.00	2.10	0.00
5% LSE VARIETY MEANS (*****=NS)		29.34%	6.64%	2.01%	0.00%	0.00%	0.00%	0.00%	7.55%	0.00%
(+ - PROB=.05 ++ - PROB=.01)										

CORRELATIONS

YIELD KG/HA	1.00	-0.41++	-0.31*	0.00	0.00	0.00	0.00	0.00	0.11	0.00
DAYS TO FLOWER	-0.41++	1.00	0.77++	0.00	0.00	0.00	0.00	0.00	0.65++	0.00
DAYS TO MATURITY	-0.31+	0.77++	1.00	0.00	0.00	0.00	0.00	0.00	0.83++	0.00
NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	0.11	0.65++	0.83++	0.00	0.00	0.00	0.00	1.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.58++	-0.16	-0.31+	0.00	0.00	0.00	0.00	0.00	-0.06	0.00
PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED	-0.42++	0.69++	0.81++	0.00	0.00	0.00	0.00	0.00	0.52++	0.00

TABLE 117 EXPERIMENT 302 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	CLARK 63	1.00	106.75	0.00	0.00	2.75
4	CUTLER 71	1.00	134.25	0.00	0.00	2.75
5	WILLIAMS	1.00	127.75	0.00	0.00	2.00
10	COLUMBUS	1.00	94.00	0.00	0.00	2.50
1	CALLAND	1.00	99.50	0.00	0.00	3.25
2	WOODWORTH	1.00	89.50	0.00	0.00	1.25
13	AMSOY 71	1.00	93.00	0.00	0.00	3.00
14	HODGSON	1.00	143.75	0.00	0.00	1.50
9	BEESON	1.00	105.50	0.00	0.00	3.00
16	STEELE	1.00	138.00	0.00	0.00	1.25
8	WELLS	1.00	94.00	0.00	0.00	3.25
12	CORSOY	1.00	118.00	0.00	0.00	2.75
15	HARK	1.00	44.25	0.00	0.00	2.00
11	ESSEX	1.00	77.75	0.00	0.00	4.25
7	FORREST	1.00	97.50	0.00	0.00	4.75
3	HILL	1.00	91.25	0.00	0.00	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LIST VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA						
DAYS TO FLOWER						
DAYS TO MATURITY						
NODULE NUMBER 1						
NODULE NUMBER 2						
NODULE WEIGHT 1						
NODULE WEIGHT 2						
PLANT HEIGHT						
LODGING						
SHATTER						
PLANTS HARVEST						
PODS PER PLANT						
100 SEED WEIGHT						
QUALITY OF SEED						

TABLE 118 EXPERIMENT 141 YEAR 1976

REGION - ASIA
 SITE - LAHORE
 LATITUDE - 31 DEG. 30 MIN. N
 COOPERATOR - TECHNICAL SERVICES ASSOCIATION
 DATE PLANTED - JULY 29, 1976
 SOIL TYPE - CLAY
 AMOUNT OF MOISTURE - 555 MM
 NUMBER OF IRRIGATIONS - 4
 COUNTRY - PAKISTAN
 ELEVATION - 229 M
 LONGITUDE - 74 DEG. 20 MIN. E
 PROJECT - AGRICULTURAL PROJECT
 DATE HARVESTED - NOVEMBER, 1976

TABLE 118 EXPERIMENT 141 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	1.00	0.00	0.00	2.50
11	DAVIS	1.00	0.00	0.00	1.50
3	BRAGG	1.00	0.00	0.00	1.75
9	WILLIAMS	1.00	0.00	0.00	1.25
8	BOSSIER	1.00	0.00	0.00	1.25
14	BEESON	1.00	0.00	0.00	3.00
1	CALLAND	1.00	0.00	0.00	3.50
6	PICKETT 71	1.00	0.00	0.00	1.25
10	CLARK 63	1.00	0.00	0.00	1.50
16	ESSEX	1.00	0.00	0.00	1.00
2	WOODWORTH	1.00	0.00	0.00	2.50
12	FORREST	1.00	0.00	0.00	1.25
13	WELLS	1.00	0.00	0.00	2.25
15	COLUMBUS	1.00	0.00	0.00	1.75
7	CUTLER 71	1.00	0.00	0.00	2.25
5	HILL	1.00	0.00	0.00	1.25
GRAND MEAN					
STANDARD ERROR OF A VARIETY MEAN					
COEFFICIENT OF VARIATION					
5% LSD VARIETY MEANS (*****=NS)					
CORRELATIONS					
		(+ - PROB=.05			
		++ - PROB=.01)			
YIELD	KG/HA	0.00	0.00	0.00	0.11
DAY'S TO FLOWER		0.00	0.00	0.00	-0.25
DAY'S TO MATURITY		0.00	0.00	0.00	-0.04
MODULE NUMBER 1		0.00	0.00	0.00	0.00
MODULE NUMBER 2		0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.00	0.00	0.00	0.00
MODULE WEIGHT 2		0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00
100 SEED WEIGHT		0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	1.00

TABLE 119 EXPERIMENT 78 YEAR 1976

REGION - ASIA
 SITE - MIRWAH
 LATITUDE - 25 DEG. N
 COOPERATORS - A. H. CHAUDHRY, M.A. JALEEL
 DATE PLANTED - JULY 10, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SANDY LOAM
 NUMBER OF IRRIGATIONS - 4
 SUBSTITUTE VARIETY - HAMPTON 266A

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S	
											PROB=.05	PROB=.01
4	RANSOM	2392.14	0.00	103.00	0.00	0.00	0.00	0.00	34.00	0.00		
3	BRAGG	2228.78	0.00	100.50	0.00	0.00	0.00	0.00	43.30	0.00		
8	BOSSIER	2077.08	0.00	96.50	0.00	0.00	0.00	0.00	42.05	0.00		
6	PICKETT 71	1960.39	0.00	100.50	0.00	0.00	0.00	0.00	28.95	0.00		
11	DAVIS	1913.72	0.00	93.00	0.00	0.00	0.00	0.00	36.15	0.00		
12	FORREST	1867.04	0.00	86.00	0.00	0.00	0.00	0.00	29.00	0.00		
15	HAMPTON 266A	1727.01	0.00	103.00	0.00	0.00	0.00	0.00	31.90	0.00		
16	ESSEX	1610.32	0.00	86.00	0.00	0.00	0.00	0.00	28.35	0.00		
9	WILLIAMS	1400.28	0.00	79.00	0.00	0.00	0.00	0.00	38.50	0.00		
5	HILL	1283.59	0.00	79.00	0.00	0.00	0.00	0.00	26.25	0.00		
10	CLARK 63	1225.24	0.00	84.25	0.00	0.00	0.00	0.00	33.10	0.00		
1	CALLAND	1155.23	0.00	86.00	0.00	0.00	0.00	0.00	39.10	0.00		
7	CUTLER 71	1096.89	0.00	84.25	0.00	0.00	0.00	0.00	32.10	0.00		
2	WOODWORTH	961.86	0.00	79.00	0.00	0.00	0.00	0.00	33.30	0.00		
13	WELLS	816.83	0.00	79.00	0.00	0.00	0.00	0.00	24.25	0.00		
14	BEESON	781.82	0.00	86.00	0.00	0.00	0.00	0.00	34.55	0.00		
GRAND MEAN												
STANDARD ERROR OF A VARIETY MEAN												
COEFFICIENT OF VARIATION												
5% LSD VARIETY MEANS (*****=NS)												
230		1531.14	0.00	89.06	0.00	0.00	0.00	0.00	33.43	0.00		
		167.44	0.00	1.98	0.00	0.00	0.00	0.00	2.15	0.00		
		21.87%	0.00%	4.44%	0.00%	0.00%	0.00%	0.00%	12.64%	0.00%		
		476.93	0.00	5.63	0.00	0.00	0.00	0.00	6.11	0.00		
C O R R E L A T I O N S												
	YIELD	KG/HA	1.00	0.00	0.63++	0.00	0.00	0.00	0.00	0.32+	0.00	
	DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	DAKS TO MATURITY	0.63++	0.00	1.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	
	NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
	PLANT HEIGHT	0.32+	0.00	0.24	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
	LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	
	SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PLANTS HARVEST	0.26+	0.00	-0.16	0.00	0.00	0.00	0.00	0.16	0.00	0.00	
	PODS PER PLANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	100 SEED WEIGHT	-0.44++	0.00	-0.18	0.00	0.00	0.00	0.00	0.15	0.00	0.00	
	QUALITY OF SEED	-0.46++	0.00	-0.24	0.00	0.00	0.00	0.00	0.01	0.00	0.00	

TABLE 119 EXPERIMENT 78 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4 RANSON		0.00	134.25	0.00	15.40	2.00
3 BRAGG		0.00	133.00	0.00	13.51	2.25
8 BOSSIER		0.00	122.25	0.00	13.91	2.00
6 PICKETT 71		0.00	130.75	0.00	13.94	2.00
11 DAVIS		0.00	136.50	0.00	15.06	2.00
12 FORREST		0.00	127.50	0.00	11.70	2.00
15 HAMPTON 266A		0.00	37.25	0.00	15.76	2.00
16 ESSEX		0.00	128.25	0.00	14.57	2.00
9 WILLIAMS		0.00	119.25	0.00	15.76	2.00
5 HILL		0.00	142.75	0.00	14.18	2.00
10 CLARK 63		0.00	124.25	0.00	15.61	2.00
1 CALLAND		0.00	110.00	0.00	18.37	2.50
7 CUTLER 71		0.00	125.75	0.00	18.34	2.00
2 WOODHORTH		0.00	115.25	0.00	15.32	2.00
13 WELLS		0.00	99.00	0.00	14.91	3.00
14 BEESON		0.00	111.00	0.00	21.91	3.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN		0.00	8.94	0.00	0.39	0.09
COEFFICIENT OF VARIATION		0.00%	15.08%	0.00%	5.03%	8.62%
5% LSD VARIETY MEANS (*****=NS)		0.00	25.46	0.00	1.11	0.27
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD KG/HA	0.00	0.26+	0.00	-0.44++	-0.46++	
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	
DAYS TO MATURITY	0.00	-0.16	0.00	-0.18	-0.24	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	0.16	0.00	0.15	-0.01	
PLANT LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.00	-0.16	-0.17	
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	
100 SEED WEIGHT	0.00	-0.16	0.00	1.00	0.47++	
QUALITY OF SEED	0.00	-0.17	0.00	0.47++	1.00	

TABLE 120 EXPERIMENT 105

YEAR 1976

REGION - ASIA
 SITE - SWAT
 LATITUDE - 36 DEG. 46 MIN. N
 COOPERATOR - SYED BAD SHAH
 DATE PLANTED - JUNE 18, 1976
 SOIL TYPE - SILTY LOAM
 FERTILIZER USED (KG/HA) - N 20.21, P 22.72
 AMOUNT OF MOISTURE - 196 MM
 NUMBER OF IRRIGATIONS - 5
 SUBSTITUTE VARIETY - LEE 74

COUNTRY - PAKISTAN
 ELEVATION - 904 M
 LONGITUDE - 72 DEG. 21 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS		
											(+ - PROB=.05	(+ + - PROB=.01)	
15	SWIFT	3650.79	35.50	92.00	0.00	0.00	0.00	0.00	108.00	1.00			
12	HODGSON	3509.01	36.25	92.00	0.00	0.00	0.00	0.00	92.25	1.00			
3	CUTLER 71	3485.38	41.25	109.00	0.00	0.00	0.00	0.00	91.00	1.75			
9	LEE 74	3449.94	59.50	125.00	0.00	0.00	0.00	0.00	91.50	1.00			
14	STEELE	3414.50	36.25	97.00	0.00	0.00	0.00	0.00	86.25	1.00			
8	BEESON	3331.79	38.50	109.00	0.00	0.00	0.00	0.00	85.50	1.25			
2	WOODWORTH	3326.21	37.50	109.00	0.00	0.00	0.00	0.00	89.25	1.75			
4	WILLIAMS	3201.83	37.50	109.00	0.00	0.00	0.00	0.00	96.75	1.25			
10	CORSOY	3119.2	38.00	109.00	0.00	0.00	0.00	0.00	87.00	1.50			
16	ALTONA	3083.68	34.75	92.00	0.00	0.00	0.00	0.00	91.25	1.00			
7	WELLS	3035.59	37.75	97.00	0.00	0.00	0.00	0.00	79.00	1.00			
11	AMSOY 71	3023.77	36.50	109.00	0.00	0.00	0.00	0.00	94.75	1.50			
13	HARK	2729.23	39.50	97.00	0.00	0.00	0.00	0.00	96.00	1.00			
5	CLARK 63	2386.60	40.50	109.00	0.00	0.00	0.00	0.00	102.25	2.00			
6	FORREST	2150.30	56.25	125.00	0.00	0.00	0.00	0.00	81.25	1.00			
1	CALLAND	2091.23	37.50	109.00	0.00	0.00	0.00	0.00	100.25	2.00			
		GRAND MEAN	3061.81	40.19	105.56	0.00	0.00	0.00	0.00	92.02	1.31		
		STANDARD ERROR OF A VARIETY MEAN	146.42	0.38	0.00	0.00	0.00	0.00	0.00	2.92	0.16		
		COEFFICIENT OF VARIATION	9.56%	1.88%	0.00%	0.00%	0.00%	0.00%	0.00%	6.35%	24.43%		
		5% LSD VARIETY MEANS (*****NS)	417.07	1.07	0.00	0.00	0.00	0.00	0.00	8.32	0.46		
		YIELD	KG/HA	1.00	-0.19	-0.31+	0.00	0.00	0.00	0.00	-0.04	-0.32++	
		DAYS TO FLOWER		-0.19	1.00	0.80++	0.00	0.00	0.00	0.00	-0.23	-0.14	
		DAYS TO MATURITY		-0.31+	0.80++	1.00	0.00	0.00	0.00	-0.19	0.23		
		NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
		NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
		NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
		NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
		PLANT HEIGHT		-0.04	-0.23	-0.19	0.00	0.00	0.00	0.00	1.00	0.24	
		LODGING		-0.32++	-0.14	0.23	0.00	0.00	0.00	0.00	0.24	1.00	
		SHATTER		-0.17	-0.58++	-0.40++	0.00	0.00	0.00	0.00	-0.23	-0.14	
		HARVEST		0.20	-0.23	-0.46++	0.00	0.00	0.00	0.00	-0.08	0.09	
		PLANT		-0.27+	-0.19	0.30+	0.00	0.00	0.00	0.00	0.26+	0.34++	
		100 SEED QUALITY		-0.01	-0.52++	-0.24	0.00	0.00	0.00	0.00	0.16	0.23	
		OF SEED		-0.55++	0.07	0.13	0.00	0.00	0.00	0.00	-0.07	0.09	

TABLE 120 EXPERIMENT 105 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15 SWIFT		2.00	192.00	56.75	18.58	2.00
12 HODGSON		2.00	160.50	63.00	18.75	1.00
3 CUTLER 71		1.50	157.75	65.75	21.68	1.00
9 LEE 74		1.00	158.00	82.50	17.65	1.00
14 STEELE		2.00	195.25	56.75	20.35	1.00
8 BEESON		2.00	131.00	64.25	21.20	2.00
2 WOODWORTH		2.00	127.75	77.25	18.40	1.00
4 WILLIAMS		2.00	167.75	59.00	21.20	1.00
10 CORSOY		2.00	168.00	70.00	18.88	1.75
16 ALTONA		2.00	200.75	55.00	19.83	1.00
7 WELLS		2.00	191.00	59.00	19.38	3.00
11 AMSOY 71		2.00	159.50	63.75	20.40	2.00
13 HARK		1.25	168.25	71.75	20.10	2.00
5 CLARK 63		2.00	157.25	72.50	19.05	1.00
6 FORREST		1.50	141.50	58.50	16.68	3.00
1 CALLAND		1.50	151.00	89.00	21.83	4.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.17	0.20	-0.27+	-0.01	-0.55++
DAYS TO FLOWER		-0.58++	-0.23	0.19	-0.52++	0.07
DAYS TO MATURITY		-0.40++	-0.46++	0.30+	-0.24	0.13
ODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
ODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
ODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		-0.08	0.06	0.26+	0.16	-0.07
LODGING		0.09	-0.29+	0.34++	0.23	0.09
SHATTER		1.00	0.09	-0.14	0.16	-0.15
PLANTS HARVEST		0.09	1.00	-0.22	0.04	-0.06
PODS PER PLANT		0.14	-0.22	1.00	0.14	0.14
100 SEED WEIGHT		0.16	0.04	0.14	1.00	0.05
QUALITY OF SEED		-0.15	-0.06	0.14	0.05	1.00

TABLE 121 EXPERIMENT 70 YEAR 1976

REGION - ASIA
 SITE - SWAT
 LATITUDE - 36 DEG. 46 MIN. N
 COOPERATOR - SYED BAD SHAH
 DATE PLANTED - JULY 23, 1976
 SOIL TYPE - SILTY LOAM
 FERTILIZER USED (KG/HA) - N 20.21, P 22.72
 AMOUNT OF MOISTURE - 199 MM
 NUMBER OF IRRIGATIONS - 3
 SUBSTITUTE VARIETY - LEE 74.

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S		
											(+ - PROB=.05	(+ - PROB=.01)	
11	DAVIS	3261.03	47.00	113.25	0.00	0.00	0.00	0.00	48.00	1.00			
3	BRAGG	3024.60	46.75	102.00	0.00	0.00	0.00	0.00	59.25	1.00			
15	LEE 74	3024.60	43.75	102.00	0.00	0.00	0.00	0.00	50.25	1.00			
6	PICKETT 71	2835.57	44.50	106.50	0.00	0.00	0.00	0.00	39.75	1.00			
9	WILLIAMS	1134.23	33.00	103.50	0.00	0.00	0.00	0.00	32.75	1.00			
12	FORREST	756.15	45.00	108.00	0.00	0.00	0.00	0.00	34.75	1.00			
7	CUTLER 71	708.89	36.75	102.00	0.00	0.00	0.00	0.00	38.50	1.00			
2	WOODWORTH	661.63	34.50	102.00	0.00	0.00	0.00	0.00	29.75	1.00			
16	ESSEX	519.85	37.25	109.75	0.00	0.00	0.00	0.00	23.50	1.00			
14	BEESON	425.34	31.75	108.00	0.00	0.00	0.00	0.00	27.00	1.00			
8	BOSSIER	378.08	46.75	115.00	0.00	0.00	0.00	0.00	25.00	1.00			
5	HILL	378.08	44.25	108.00	0.00	0.00	0.00	0.00	28.00	1.00			
13	WELLS	307.19	30.75	115.00	0.00	0.00	0.00	0.00	29.75	1.00			
10	CLARK 63	165.41	34.75	102.00	0.00	0.00	0.00	0.00	29.75	1.00			
4	RANSOM	141.78	44.75	102.00	0.00	0.00	0.00	0.00	31.00	1.00			
1	CALLAND	94.52	35.25	108.00	0.00	0.00	0.00	0.00	35.00	1.00			
GRAND MEAN		1113.56	39.80	106.69	0.00	0.00	0.00	0.00	35.13	1.00			
STANDARD ERROR OF A VARIETY MEAN		80.06	0.38	0.84	0.00	0.00	0.00	0.00	1.47	0.00			
COEFFICIENT OF VARIATION		14.38%	1.89%	1.58%	0.00%	0.00%	0.00%	0.00%	8.36%	0.00%			
5% LSD VARIETY MEANS (*****=NS)		228.04	1.07	2.40	0.00	0.00	0.00	0.00	4.18	0.00			
C O R R E L A T I O N S													
YIELD	KG/HA	1.00	0.53++	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.82++	0.00	
DAYS TO FLOWER		0.53++	1.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.45++	0.00	
DAYS TO MATURITY		-0.11	0.07	1.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.28+	0.00	
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT		0.82++	0.45++	-0.28+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHATTER		-0.20	-0.30+	-0.35++	0.00	0.00	0.00	0.00	0.00	0.00	-0.26+	0.00	
PLANTS HARVEST		0.77++	0.45++	-0.15	0.00	0.00	0.00	0.00	0.00	0.00	-0.82++	0.00	
PODS PER PLANT		0.86++	0.37++	-0.31+	0.00	0.00	0.00	0.00	0.00	0.00	0.83++	0.00	
100 SKED WEIGHT		0.08	-0.33++	-0.51++	0.00	0.00	0.00	0.00	0.00	0.00	-0.21	0.00	
QUALITY OF SEED		-0.74++	-0.35++	0.53++	0.00	0.00	0.00	0.00	0.00	0.00	-0.68++	0.00	

TABLE 121 EXPERIMENT 70 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS SHATTERED OR HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	DAVIS	1.00	121.75	33.25	16.38
3	BRAGG	1.00	131.25	40.50	18.53
15	LEE 74	1.00	117.25	36.50	18.20
6	PICKETT 71	2.00	77.00	27.00	17.18
9	WILLIAMS	2.00	77.50	22.75	20.75
12	FORREST	2.00	80.25	17.25	14.78
7	CUTLER 71	2.00	76.50	18.00	21.48
2	WOODWORTH	2.00	70.00	23.25	17.28
16	ESSEX	1.00	58.50	11.25	14.58
14	BEESON	2.00	65.25	15.25	20.75
8	BOSSIER	1.00	70.00	11.25	15.88
5	HILL	2.00	67.25	13.00	14.50
13	WELLS	1.00	62.75	12.25	14.70
10	CLARK 63	2.00	76.75	17.50	17.60
4	RANSOM	1.00	58.75	13.00	17.38
1	CALLAND	1.00	66.75	10.75	18.88
	GRAND MEAN	1.50	79.84	20.17	17.42
	STANDARD ERROR OF A VARIETY MEAN	0.00	6.15	2.18	0.57
	COEFFICIENT OF VARIATION	0.00%	15.41%	21.63%	6.49%
	5% LSD VARIETY MEANS (**NS=NS)	0.00	17.52	6.21	1.61
	CORRELATIONS	(+ - PROB=>.05	(+ - PROB=>.05	(+ - PROB=>.01)	
235	YIELD KG/HA	-0.20	0.77++	0.86++	0.08
	DAYS TO FLOWER	-0.30+	0.45++	0.37++	-0.33++
	DAYS TO MATURITY	-0.35++	-0.15	-0.31+	-0.51++
	NODULE NUMBER 1	0.00	0.00	0.00	0.53++
	NODULE NUMBER 2	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00
	PLANT HEIGHT	-0.26+	0.82++	0.83++	0.21
	LODGING	0.00	0.00	0.00	0.00
	SHATTER	1.00	-0.24	-0.09	-0.17
	PLANTS HARVEST	-0.24	1.00	0.76++	0.10
	PODS PER PLANT	-0.09	0.76++	1.00	0.20
	100 SEED WEIGHT	0.26+	0.10	0.20	1.00
	QUALITY OF SEED	-0.17	-0.63++	-0.79++	-0.28+
					1.00

TABLE 122 EXPERIMENT 106 YEAR 1976

REGION - ASIA
 SITE - TANDOJAM
 LATITUDE - 25 DEG. N
 COOPERATORS - A. H. CHAUDHRY, M.A. JALEEL, N. AHMED, A. H. SOOMRO
 DATE PLANTED - JUNE 5, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 101.1, P 84.3
 AMOUNT OF MOISTURE - 63 MM
 NUMBER OF IRRIGATIONS - 6
 LOCAL VARIETY - LOPPA

COUNTRY - PAKISTAN

ELEVATION - 2 M

LONGITUDE - 63 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

SOIL TYPE - SANDY LOAM

MM

FERTILIZER USED (KG/HA) - N 101.1, P 84.3

AMOUNT OF MOISTURE - 63 MM

NUMBER OF IRRIGATIONS - 6

LOCAL VARIETY - LOPPA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
9	LOPPA	2604.69	26.25	92.00	0.00	5.50	0.00	0.11	78.90	0.00
6	FORREST	2521.34	27.75	110.25	0.00	20.00	0.00	0.35	39.68	0.00
5	CLARK 63	2354.64	23.00	91.25	0.00	13.00	0.00	0.21	64.50	0.00
1	CALLAND	2208.77	18.50	90.75	0.00	7.25	0.00	0.13	68.23	0.00
4	WILLIAMS	2208.77	20.00	88.25	0.00	14.50	0.00	0.26	69.45	0.00
3	CUTLER 71	2187.94	18.50	89.50	0.00	17.75	0.00	0.31	70.10	0.00
2	WOODWORTH	1854.54	16.25	83.50	0.00	14.50	0.00	0.30	59.78	0.00
7	WELLS	1396.11	17.00	89.75	0.00	16.50	0.00	0.33	47.40	0.00
11	AMSOY 71	1312.76	17.00	92.50	0.00	5.25	0.00	0.07	42.85	0.00
13	HARK	1229.41	17.00	80.00	0.00	11.25	0.00	0.18	43.45	0.00
10	CORSOY	1125.22	17.00	85.00	0.00	17.50	0.00	0.24	28.68	0.00
15	SWIFT	1125.22	17.00	70.75	0.00	1.75	0.00	0.03	32.77	0.00
14	STEELE	1021.04	17.00	72.50	0.00	6.00	0.00	0.10	35.15	0.00
12	HODGSON	770.99	17.00	87.50	0.00	1.75	0.00	0.02	28.13	0.00
8	BEESON	687.64	17.00	104.00	0.00	5.75	0.00	0.08	52.90	0.00
16	ALTONA	604.29	17.00	73.00	0.00	3.50	0.00	0.11	24.50	0.00
STANDARD ERROR OF A VARIETY MEAN		1575.84	18.95	87.53	0.00	10.11	0.00	0.18	49.15	0.00
COEFFICIENT OF VARIATION		158.73	2.01	2.81	0.00	2.55	0.00	0.05	3.60	0.00
5% LSD VARIETY MEANS (*****=NS)		20.15%	21.17%	6.42%	0.00%	50.43%	0.00%	61.70%	14.65%	0.00%
		452.14	5.71	8.00	0.00	7.26	0.00	0.15	10.26	0.00
CORRELATIONS										
									(+ - PROB=.05 ++ - PROB=.01)	
YIELD	KG/HA	1.00	0.44++	0.38++	0.00	0.45++	0.00	0.41++	0.76++	0.00
DAYS TO FLOWER	0.44++	1.00	0.35++	0.00	0.11	0.00	0.15	0.24	0.24	0.00
DAYS TO MATURITY	0.38++	0.35++	1.00	0.00	0.32++	0.00	0.27+	0.34++	0.34++	0.00
MODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2	0.45++	0.11	0.32++	0.00	1.00	0.00	0.87++	0.30++	0.30++	0.00
MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 2	0.41++	0.15	0.27+	0.00	0.87++	0.00	1.00	0.00	0.37++	0.00
PLANT HEIGHT	0.76++	0.24	0.34++	0.00	0.30+	0.00	0.37++	1.00	0.00	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.09	-0.06	-0.02	0.00	-0.00	0.00	-0.11	-0.04	0.00	0.00
PODS PER PLANT	0.71++	0.45++	0.61++	0.00	0.33++	0.00	0.34++	0.63++	0.00	0.00
100 SEED WEIGHT	-0.41++	-0.35++	0.07	0.00	-0.08	0.00	-0.05	-0.15	0.00	0.00
QUALITY OF SEED	-0.66++	-0.42++	-0.20	0.00	-0.15	0.00	-0.16	-0.59++	0.00	0.00

TABLE 122

EXPERIMENT 106 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9	LOPPA	0.00	136.25	61.50	12.98	2.00
6	FORREST	0.00	114.25	78.75	13.65	2.75
5	CLARK 63	0.00	145.50	47.50	15.93	2.75
1	CALLAND	0.00	130.00	46.50	16.23	3.00
4	WILLIAMS	0.00	122.50	50.00	15.29	2.00
3	CUTLER 71	0.00	126.25	50.75	17.80	3.75
2	WOODWORTH	0.00	100.00	55.75	15.07	3.00
7	WELLS	0.00	136.25	41.50	17.92	4.50
11	AMSOY 74	0.00	130.75	41.00	17.34	4.50
13	HARK	0.00	146.75	37.50	15.85	4.25
10	CORSOY	0.00	130.00	22.25	16.04	4.25
15	SWIFT	0.00	143.75	26.50	13.63	3.00
14	STEELE	0.00	122.75	24.25	16.05	3.50
12	HODGSON	0.00	136.50	26.25	18.63	4.75
8	BEESON	0.00	114.50	45.25	19.41	4.00
16	ALTONA	0.00	100.00	18.50	18.70	4.75

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LSD VARIETY MEANS (*****=NS)

(* - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	0.00	0.09	0.71++	-0.41++	-0.66++
DAYS TO FLOWER	0.00	-0.06	0.45++	-0.35++	-0.42++	
DAYS TO MATURITY	0.00	-0.02	0.61++	-0.07	-0.20	
ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
ODULE NUMBER 2	0.00	-0.00	0.33++	-0.08	-0.15	
ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
ODULE WEIGHT 2	0.00	-0.11	0.34++	-0.05	-0.16	
PLANT HEIGHT	0.00	-0.04	0.63++	-0.15	-0.59++	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
HARVEST	0.00	1.00	-0.23	-0.07	0.11	
PLANT	0.00	-0.23	1.00	-0.33++	-0.52++	
WEIGHT	0.00	-0.07	-0.33++	1.00	0.61++	
QUALITY OF SEED	0.00	0.11	-0.52++	0.61++	1.00	

TABLE 123 EXPERIMENT 46 YEAR 1976

REGION - ASIA
 SITE - TANDOJAM
 LATITUDE - 25 DEG. N
 COOPERATORS - A. H. CHAUDHRY, M.A. JALEEL, N. AHMED, A. H. SOOMRO
 DATE PLANTED - JUNE 22, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 101.1, P 84.3
 AMOUNT OF MOISTURE - 63 MM
 NUMBER OF IRRIGATIONS - 5
 SUBSTITUTE VARIETY - HAMPTON 266A

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS		
											(+ - PROB=.05	(+ - PROB=.01)	
11	COBB	3156.88	36.50	117.75	0.00	0.00	0.00	0.00	57.35	0.00			
8	BOSSIER	3031.86	36.50	117.00	0.00	0.00	0.00	0.00	45.60	0.00			
3	BRAGG	2969.34	35.75	115.25	0.00	0.00	0.00	0.00	51.58	0.00			
13	IMPROVED PELICAN	2833.90	41.25	110.50	0.00	5.25	0.00	0.35	109.05	0.00			
4	RANSOM	2813.06	35.00	117.25	0.00	0.00	0.00	0.00	46.83	0.00			
6	PICKETT 71	2667.20	34.25	115.50	0.00	0.00	0.00	0.00	38.25	0.00			
12	DAVIS	2625.52	35.75	110.00	0.00	10.00	0.00	0.00	43.55	0.00			
15	HAMPTON 266A	2594.27	41.75	117.75	0.00	0.00	0.00	0.00	47.05	0.00			
14	FORREST	1969.14	32.00	95.75	0.00	18.25	0.00	0.91	37.35	0.00			
10	CLARK 63	1906.63	24.25	90.00	0.00	28.00	0.00	1.12	56.60	0.00			
16	ESSEX	1896.21	28.00	95.50	0.00	22.75	0.00	0.89	32.48	0.00			
9	WILLIAMS	1896.21	25.00	86.75	0.00	26.75	0.00	1.29	62.98	0.00			
1	CALLAND	1771.19	29.25	97.50	0.00	20.50	0.00	1.18	75.70	0.00			
7	CUTLER 71	1625.32	24.75	86.25	0.00	23.50	0.00	0.84	47.25	0.00			
2	WOODWORTH	1203.57	25.00	82.25	0.00	17.00	0.00	0.94	54.50	0.00			
5	HILL	1187.74	33.25	89.50	0.00	13.50	0.00	0.57	31.08	0.00			
GRAND MEAN		2259.57	32.39	102.78	-0.00	11.59	-0.00	-0.53	52.32	0.00			
STANDARD ERROR OF A VARIETY MEAN		248.77	2.41	2.82	0.00	5.97	0.00	0.28	5.46	0.00			
5% LSD VARIETY MEANS (***)=NS)		22.02%	14.86%	5.50%	-0.00%	102.95%	-0.00%	106.10%	20.85%	0.00%			
708.61		6.85	8.04	0.00	17.00	0.00	0.80	15.54	0.00				
(+ - PROB=.05 + - PROB=.01)													
YIELD	KG/HA	1.00	0.51++	0.73++	0.00	-0.48++	0.00	-0.44++	0.20	0.00			
DAYS TO	FLOWER	0.51++	1.00	0.84++	0.00	-0.63++	0.00	-0.64++	0.34++	0.00			
DAYS TO	MATURITY	0.73++	0.84++	1.00	0.00	-0.69++	0.00	-0.70++	0.17	0.00			
NODULE	NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00			
NODULE	NUMBER 2	-0.48++	-0.63++	-0.69++	0.00	1.00	0.00	0.92++	-0.08	0.00			
NODULE	WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00			
NODULE	WEIGHT 2	-0.44++	-0.64++	-0.70++	0.40	0.92++	0.00	1.00	-0.02	0.00			
PLANT	HEIGHT	0.20	0.34++	0.17	-0.00	-0.08	0.00	-0.02	1.00	0.00			
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00			
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PLANTS	HARVEST	0.22	0.03	-0.10	-0.00	0.03	-0.00	0.06	0.06	0.00			
PODS PER	PLANT	0.69++	0.69++	-0.70++	0.00	-0.46++	0.00	-0.42++	0.29+	0.00			
100 SEED	WEIGHT	0.12	-0.10	0.09	0.00	0.07	0.00	0.04	0.02	0.00			
QUALITY	OF SEED	-0.20	-0.11	-0.17	0.00	0.04	0.00	0.16	0.21	0.00			

TABLE 123 EXPERIMENT 46 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	COBB	0.00	101.00	93.00	13.48	2.25
8	BOSSIER	0.00	91.00	79.00	15.69	2.00
3	BRAGG	0.00	106.25	73.00	14.37	2.00
13	IMPROVED PELICAN	0.00	128.00	86.75	14.85	2.25
4	RANSOM	0.00	107.00	54.25	17.03	2.00
6	PICKETT 71	0.00	105.50	59.25	13.45	2.00
12	DAVIS	0.00	119.75	65.75	16.44	2.00
15	HAMPTON 266A	0.00	86.00	99.50	16.29	2.00
14	FORREST	0.00	109.25	54.25	12.28	2.25
10	CLARK 63	0.00	96.00	51.50	15.15	2.00
16	ESSEX	0.00	85.50	52.00	14.15	2.00
9	WILLIAMS	0.00	121.25	42.50	15.08	2.00
1	CALLAND	0.00	97.00	49.00	15.58	2.50
7	CUTLER 71	0.00	112.75	35.00	16.75	2.00
2	WOODWORTH	0.00	108.00	44.75	14.58	2.50
5	HILL	0.00	112.25	46.50	13.04	2.00
STANDARD ERROR OF A VARIETY MEAN		0.00	105.41	61.63	14.89	2.11
COEFFICIENT OF VARIATION (%)		0.00%	9.89	5.31	0.48	0.15
5% LSD VARIETY MEANS (*****=NS)		0.00	18.77%	17.25%	6.49%	13.83%
			*****	15.14	1.38	*****
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.22	0.69++	0.12	-0.20
DAYS TO FLOWER		0.00	0.03	0.69++	-0.10	-0.11
DAYS TO MATURITY		0.00	-0.10	0.70++	-0.09	-0.17
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.03	-0.46++	0.07	0.04
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	-0.06	-0.42++	-0.04	-0.16
PLANT HEIGHT		0.00	0.26+	0.29+	0.02	0.21
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.04	-0.05	-0.10
PODS PER PLANT		0.00	0.04	1.00	-0.08	0.01
100 SEED WEIGHT		0.00	-0.05	-0.08	1.00	-0.13
QUALITY OF SEED		0.00	-0.10	0.01	-0.13	1.00

TABLE 124

EXPERIMENT 43

YEAR 1976

REGION - ASIA
 SITE - UMERKOT
 LATITUDE - 25 DEG. N
 COOPERATORS - A. H. CHAUDHRY, M.A. JALEEL
 DATE PLANTED - JULY 4, 1976
 SOIL TYPE - SANDY LOAM
 FERTILIZER USED (KG/HA) - N 83.2, P 29.4
 NUMBER OF IRRIGATIONS - 3
 SUBSTITUTE VARIETY - HAMPTON 266A

COUNTRY - PAKISTAN

ELEVATION - 29 M

LONGITUDE - 69 DEG. E

DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER OR CROSS	VARIETY	YIELD KG/HA	FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS (*) - PROB=.05 ** - PROB=.01						
					RANSOM	COBB	BRAGG	BOSSIER	FORREST	IMPROVED PELICAN	DAVIS	CALLAND	CLARK 63	PICKETT 71	ESSEX	WILLIAMS	HAMPTON 266A
4	RANSOM	2925.58	0.00	106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.58	0.00
11	COBB	2813.06	0.00	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.80	0.00
3	BRAGG	2542.17	0.00	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.10	0.00
8	BOSSIER	2342.13	0.00	107.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.25	0.00
14	FORREST	2229.61	0.00	94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.05	0.00
13	IMPROVED PELICAN	2229.61	0.00	109.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105.35	0.00
12	DAVIS	2212.94	0.00	99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.68	0.00
1	CALLAND	2158.76	0.00	88.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.73	0.00
10	CLARK 63	1992.06	0.00	87.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.75	0.00
6	PICKETT 71	1921.22	0.00	105.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.50	0.00
16	ESSEX	1850.37	0.00	90.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.60	0.00
9	WILLIAMS	1804.53	0.00	89.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.78	0.00
15	HAMPTON 266A	1737.85	0.00	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.30	0.00
2	WOODWORTH	1662.83	0.00	85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.78	0.00
7	CUTLER 71	1379.44	0.00	87.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.43	0.00
5	HILL	1187.74	0.00	88.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.98	0.00
240	GRAND MEAN	2061.87	0.00	97.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.73	0.00
STANDARD ERROR OF A VARIETY MEAN		246.56	0.00	3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.21	0.00
COEFFICIENT OF VARIATION		23.92%	0.00%	6.35%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.88%	0.00%
5% LSD VARIETY MEANS (*****=NS)		702.29	0.00	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.68	0.00
(*) - PROB=.05 ** - PROB=.01																	
YIELD KG/HA																	
DAYS TO FLOWER																	
DAYS TO MATURITY																	
NODULE NUMBER 1																	
NODULE NUMBER 2																	
NODULE WEIGHT 1																	
NODULE WEIGHT 2																	
PLANT HEIGHT																	
LODGING																	
SHATTER																	
PLANTS HARVEST																	
PODS PER PLANT																	
100 SEED WEIGHT																	
QUALITY OF SEED																	

TABLE 124 EXPERIMENT 43 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	RANSOM	0.00	212.25	0.00	13.62	2.00
11	COBB	0.00	150.00	0.00	11.30	2.00
3	BRAGG	0.00	187.50	0.00	11.98	2.00
8	BOSSIER	0.00	145.25	0.00	11.69	2.00
14	FORREST	0.00	142.75	0.00	11.16	2.00
13	IMPROVED PELICAN	0.00	140.75	0.00	11.57	2.00
12	DAVIS	0.00	213.75	0.00	14.47	2.25
1	CALLAND	0.00	198.00	0.00	17.31	2.25
10	CLARK 63	0.00	184.50	0.00	13.71	2.00
6	PICKETT 71	0.00	144.00	0.00	11.88	2.00
16	ESSEX	0.00	170.25	0.00	12.86	2.00
9	WILLIAMS	0.00	207.50	0.00	15.26	2.00
15	HAMPTON 266A	0.00	78.00	0.00	15.80	2.25
2	WOODWORTH	0.00	176.25	0.00	15.95	2.00
7	CUTLER 71	0.00	132.75	0.00	17.83	2.25
5	HILL	0.00	158.75	0.00	14.02	2.00
GRAND MEAN		0.00	165.14	0.00	13.77	2.06
STANDARD ERROR OF A VARIETY MEAN		0.00	15.94	0.00	0.43	0.13
COEFFICIENT OF VARIATION		0.00*	19.30%	0.00%	6.19%	12.26%
5% 1SD VARIETY MEANS (*****=NS)		0.00	45.40	0.00	1.21	*****
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.31+	0.00	-0.36++	-0.14
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	-0.24	0.00	-0.45++	-0.03	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	-0.07	0.00	-0.39++	-0.11	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.00	0.09	-0.14	
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	
100 SEED WEIGHT	0.00	0.09	0.00	1.00	0.26+	
QUALITY OF SEED	0.00	-0.14	0.00	0.26+	1.00	

TABLE 125

EXPERIMENT 28

YEAR 1976

REGION - ASIA
 SITE - LOS BANOS
 LATITUDE - 14 DEG. 10 MIN. N
 COOPERATOR - B.P.I. ECONOMIC GARDEN
 DATE PLANTED - JUNE 14, 1976
 SOIL TYPE - CLAY, PH 6.0
 FERTILIZER USED (KG/HA) - N 49.0, P 21.0, K 42.0
 AMOUNT OF MOISTURE - 856 MM
 LOCAL VARIETY - L-114

COUNTRY - PHILIPPINES
 ELEVATION - 15 M
 LONGITUDE - 121 DEG. 15 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER		NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
					NUMBER 1	NUMBER 2				
10	WILLIAMS	3491.11	23.00	88.00	83.50	393.25	0.05	1.56	80.10	1.00
7	CUTLER 71	3481.95	23.00	88.00	122.50	460.50	0.10	1.93	80.60	1.00
12	COBB	3405.68	30.00	100.75	183.25	652.25	0.23	3.83	55.80	1.00
1	CALLAND	3381.51	23.00	89.00	47.50	355.00	0.04	2.79	88.60	1.60
16	COLORBUS	3338.58	23.00	89.00	115.50	572.50	0.10	2.44	79.02	1.00
2	WOODWORTH	3334.83	23.00	82.00	84.75	236.25	0.05	1.18	74.05	1.00
4	RANSOM	3149.50	25.00	98.00	175.75	426.00	0.18	1.90	48.50	1.00
11	CLARK 63	3056.44	23.00	88.00	115.75	326.00	0.09	1.48	80.93	1.25
6	PICKETT 71	3033.11	24.50	94.00	128.00	320.00	0.14	1.48	36.90	1.00
15	FORREST	2878.91	26.50	88.00	150.50	437.25	0.16	2.12	46.45	1.25
5	HILL	2822.23	27.75	87.25	149.00	368.75	0.05	1.68	41.68	1.00
3	BRAGG	2646.78	25.50	94.00	56.50	419.75	0.07	2.45	49.35	1.00
9	BOSSIER	2620.52	25.00	94.00	122.25	548.50	0.08	2.25	40.75	1.00
13	DAVIS	2296.29	30.00	94.00	197.00	450.25	0.39	2.85	53.55	1.00
14	IMPROVED PELICAN	2115.01	37.00	100.00	285.00	378.75	0.63	2.03	131.75	2.75
8	L-114	1921.63	41.00	116.50	803.50	651.00	2.77	3.27	106.78	3.00
GRAND MEAN		2935.88	26.89	93.16	176.27	437.25	0.32	2.20	68.42	1.27
STANDARD ERROR OF A VARIETY MEAN		215.29	0.35	0.54	24.49	60.09	0.05	0.33	2.18	0.11
COEFFICIENT OF VARIATION		14.67%	2.58%	1.16%	27.79%	31.11%	30.01%	6.38%	17.48%	0.32
5% LSD VARIETY MEANS (*****NS)		613.22	0.99	1.54	69.77	171.17	0.14	0.94	6.22	
CORRELATIONS ($* = \text{PROB} = .05$ $** = \text{PROB} = .01$)										
YIELD	KG/HA	1.00	-0.63++	-0.51++	-0.52++	-0.20	-0.52++	-0.18	-0.18	-0.57++
	FLOWER	-0.63++	1.00	0.83++	0.84++	0.31+	0.82++	0.40++	0.46++	0.84++
	DAYS TO MATURITY	-0.51++	0.83++	1.00	0.83++	0.47++	0.83++	0.47++	0.29+	0.69++
	NODULE NUMBER 1	-0.52++	0.84++	0.83++	1.00	0.38++	0.97++	0.34++	0.42++	0.78++
	NODULE NUMBER 2	-0.20	0.31+	0.47++	0.38++	1.00	0.36++	0.71++	-0.01	0.18
	NODULE WEIGHT 1	-0.52++	0.82++	0.83++	0.97++	0.36++	1.00	0.36++	0.46++	0.79++
	NODULE WEIGHT 2	-0.18	0.40++	0.47++	0.34++	0.71++	0.36++	1.00	0.04	0.22
PLANT HEIGHT		-0.18	0.46++	0.29+	0.42++	-0.01	0.46++	0.04	1.00	0.69++
LOGGING		-0.57++	0.84++	0.69++	0.78++	0.18	0.79++	0.22	0.69++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.28+	-0.44++	-0.32++	-0.39++	-0.20	-0.39++	-0.27+	-0.21	-0.41++
PODS PER PLANT		-0.49++	0.82++	0.80++	0.87++	0.35++	0.90++	0.39++	0.47++	0.77++
100 SEED WEIGHT		0.46++	-0.36++	-0.21	-0.17	-0.11	-0.20	-0.01	-0.01	-0.36++
QUALITY OF SEED		0.21	-0.54++	-0.37++	-0.39++	-0.06	-0.18	-0.18	-0.36++	-0.47++

TABLE 125 EXPERIMENT 28 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
10	WILLIAMS	1.00	156.25	27.00	18.50	2.75	40.7	27.8
7	CUTLER 71	1.00	170.00	32.75	18.50	3.00	44.3	25.8
12	COBB	1.00	134.75	49.25	15.50	2.00	38.7	26.6
1	CALLAND	1.00	139.50	45.75	16.50	2.75	39.5	24.5
16	COLUMBUS	1.00	134.25	46.50	14.50	3.00	41.5	26.5
2	WOODWORTH	1.00	138.25	44.25	16.00	2.00	45.3	28.4
4	RANSOM	1.00	167.75	43.25	17.75	3.00	38.4	28.4
11	CLARK 63	1.00	156.50	31.50	18.00	2.75	40.1	26.8
6	PICKETT 71	1.00	153.25	36.00	14.75	2.75	39.6	27.7
15	FORREST	1.00	140.25	42.75	13.00	3.00	38.8	25.1
5	HILL	1.00	136.75	40.25	16.00	2.75	39.0	25.3
3	BRAGG	1.00	151.00	46.25	13.00	2.75	39.1	25.8
9	BOSSIER	1.00	147.00	39.75	14.75	2.75	44.0	24.6
13	DAVIS	1.00	159.75	42.75	14.00	2.50	39.1	24.6
14	IMPROVED PELICAN	1.00	128.00	65.50	11.75	2.00	43.6	24.2
8	L-114	1.00	109.50	122.50	15.50	2.00	48.6	18.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
0.00								
COEFFICIENT OF VARIATION								
0.00%								
5% LSD VARIETY MEANS (*****=NS)								
(+ - PROB=.05 ++ - PROB=.01)								
C O R R E L A T I O N S								
YIELD	KG/HA	0.00	-0.28+	-0.49++	0.46++	0.21		
DAYS TO FLOWER	0.00	-0.44++	0.82++	-0.36++	-0.54++			
DAYS TO MATURITY	0.00	-0.32++	0.80++	-0.21	-0.37++			
NODULE NUMBER 1	0.00	-0.39++	0.87++	-0.10	-0.39++			
NODULE NUMBER 2	0.00	-0.20	0.35++	-0.17	-0.06			
NODULE WEIGHT 1	0.00	-0.39++	0.90++	-0.11	-0.38++			
NODULE WEIGHT 2	0.00	-0.27+	0.39++	-0.20	-0.18			
PLANT HEIGHT	0.00	-0.21	0.47++	-0.01	-0.36++			
LODGING	0.00	-0.41++	0.77++	-0.24	-0.47++			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.57++	0.24	0.30+			
PODS PER PLANT	0.00	-0.57++	1.00	-0.23	-0.41++			
100 SEED WEIGHT	0.00	0.24	-0.23	1.00	0.09			
QUALITY OF SEED	0.00	0.30+	-0.41++	0.09	1.00			

TABLE 126 EXPERIMENT 140 YEAR 1976

REGION - ASIA
 SITE - ALUTHARAMA
 LATITUDE - 7 DEG. 30 MIN. N
 COOPERATOR - S.M. SANTHIRASIVAM
 DATE PLANTED - APRIL 24, 1976
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 NUMBER OF IRRIGATIONS - 31
 LOCAL VARIETIES - PB-1, SJ-2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	PB-1	2563.01	36.75	95.50	58.00	201.50	0.73	9.19	46.05	0.00
3	HARDEE	2437.99	35.25	98.75	61.00	128.25	1.08	9.00	30.33	0.00
12	BONUS	2292.12	29.75	99.75	41.25	83.50	0.46	3.33	54.80	0.00
5	BOSSIER	2208.77	39.50	102.25	53.00	182.00	1.43	9.56	49.15	0.00
7	DAVIS	2104.59	30.50	92.50	62.50	80.25	1.41	5.84	28.18	0.00
4	IMPROVED PELICAN	1854.54	37.25	100.00	70.50	144.50	1.01	5.31	79.45	0.00
6	BRAGG	1708.67	28.50	94.75	33.00	76.75	0.45	4.70	30.90	0.00
10	HILL	1687.84	31.75	89.00	51.50	62.75	0.54	2.91	26.63	0.00
15	SJ-2	1604.49	38.25	99.50	76.75	130.00	1.07	8.86	58.40	0.00
9	FORREST	1500.30	28.50	94.50	47.00	106.00	1.20	4.98	32.30	0.00
2	HAMPTON 266A	1500.30	30.00	97.50	63.75	120.25	0.52	6.79	27.65	0.00
8	TRACY	1500.30	29.00	94.75	49.50	72.75	1.07	4.11	32.00	0.00
11	CLARK 63	1229.41	34.75	89.25	37.25	70.00	1.19	4.34	47.13	0.00
13	WILLIAMS	1187.74	30.75	99.25	39.75	29.75	1.00	1.21	30.73	0.00
	JUPITER	1104.39	40.00	125.00	49.50	106.50	0.45	3.84	54.38	0.00
GRAND MEAN		1765.63	33.37	98.17	52.95	106.32	0.91	5.60	41.87	0.00
STANDARD ERROR OF A VARIETY MEAN		252.69	0.69	1.88	14.35	30.18	0.39	1.98	2.88	0.00
COEFFICIENT OF VARIATION		28.62%	4.11%	3.84%	54.19%	56.78%	87.14%	70.69%	13.74%	0.00%
5% LSE VARIETY MEANS (**NS=NS)		721.19	1.96	5.38	*****	86.15	*****	*****	8.21	0.00

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OP SEED
1.00	0.04	-0.13	0.38++	0.33++	0.40++	0.26+	0.12	0.13	0.02	0.23	0.52++	0.36++	0.12
0.04	1.00	0.51++	1.00	0.55++	1.00	0.63++	0.23	0.23	0.23	0.23	0.77++	0.34++	0.08
-0.13	0.51++	1.00	0.12	0.26+	0.26+	0.23	0.06	0.06	0.06	0.06	0.52++	0.23	0.00
0.38++	0.13	0.12	1.00	0.55++	0.55++	0.63++	0.23	0.23	0.23	0.23	0.77++	0.34++	0.00
0.33++	0.40++	0.26+	0.06	0.63++	0.63++	0.77++	0.06	0.06	0.06	0.06	0.27+	0.11	0.00
0.35++	0.02	0.26+	0.08	0.52++	0.52++	0.77++	0.08	0.08	0.08	0.08	0.27+	0.11	0.00
0.30+	0.30+	0.26+	0.23	0.34++	0.34++	0.52++	0.18	0.18	0.18	0.18	0.27+	0.11	0.00
0.12	0.59++	0.36++	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.17	0.06	-0.17	0.08	0.01	0.01	0.01	0.13	0.13	0.13	0.13	0.22	0.22	0.00
0.42++	0.33++	0.02	0.02	0.03	0.03	0.03	0.11	0.11	0.11	0.11	0.25+	0.25+	0.00
-0.01	-0.42++	0.02	0.05	-0.16	-0.16	-0.05	-0.06	-0.06	-0.06	-0.06	-0.43++	-0.43++	0.00
-0.11	-0.36++	-0.11	-0.04	-0.13	-0.13	-0.09	-0.09	-0.09	-0.09	-0.09	-0.21	-0.21	0.00

TABLE 126 EXPERIMENT 140 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	PB-1	0.00	300.00	33.70	11.25	1.00
3	HARDEE	0.00	284.25	31.13	12.60	1.00
12	BONUS	0.00	300.00	34.13	12.50	1.00
5	BOSSIER	0.00	300.00	30.00	12.03	1.00
7	DAVIS	0.00	300.00	21.98	14.38	1.00
4	IMPROVED PELICAN	0.00	300.00	25.25	11.08	1.00
6	BRAGG	0.00	272.25	18.33	14.05	1.00
10	HILL	0.00	300.00	20.33	12.15	1.00
15	SJ-2	0.00	300.00	37.78	10.18	1.00
9	FORREST	0.00	300.00	18.70	10.75	3.00
2	HAMPTON 266A	0.00	300.00	27.60	14.88	1.00
8	TRACY	0.00	300.00	18.00	13.90	1.25
11	CLARK 63	0.00	300.00	17.43	14.10	1.00
13	WILLIAMS	0.00	272.25	12.08	15.33	1.25
1	JUPITER	0.00	293.75	18.35	12.83	1.00
STANDARD ERROR OF A VARIETY MEAN		0.00	294.83	24.32	12.80	1.17
COEFFICIENT OF VARIATION		0.00%	10.69	2.83	0.47	0.09
5% LSD VARIETY MEANS (*****=NS)		0.00	7.25%	23.24%	7.35%	15.83%
C O R R E L A T I O N S (+ - PROB=.05						++ - PROB=.01)
YIELD	KG/HA	0.00	0.17	0.42++	-0.01	-0.11
DAYS TO FLOWER	0.00	0.06	0.33++	-0.42++	-0.36++	
DAYS TO MATURITY	0.00	-0.17	0.02	0.02	-0.11	
NODULE NUMBER 1	0.00	-0.08	0.13	0.05	-0.04	
NODULE NUMBER 2	0.00	0.01	0.33+	-0.16	-0.06	
NODULE WEIGHT 1	0.00	-0.01	-0.03	0.11	0.13	
NODULE WEIGHT 2	0.00	0.13	0.25+	-0.06	-0.09	
PLANT HEIGHT	0.00	0.22	0.27+	-0.43++	-0.21	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.08	-0.14	-0.09	
PODS PER PLANT	0.00	0.08	1.00	-0.40++	-0.22	
100 SEED WEIGHT	0.00	-0.14	-0.40++	1.00	-0.21	
QUALITY OF SEED	0.00	-0.09	-0.22	-0.21	1.00	

TABLE 1.27

EXPERIMENT 174 YEAR 1976

REGION - ASIA
 SITE - ALUTHARAMA
 LATITUDE - 7 DEG. 30 MIN. N
 COOPERATOR - S. KANDSAMY
 DATE PLANTED - NOVEMBER 18, 1976
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 484 MM

COUNTRY - SRI LANKA
 ELEVATION - 266 M
 LONGITUDE - 81 DEG. E

DATE HARVESTED - FEBRUARY, 1977

5% LSD VARIETY MEANS (*****=NS)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	COLUMBUS	1803.12	25.50	78.50	119.75	222.50	0.36	1.85	44.15	1.00
4	RANSOM	1771.87	26.00	78.50	150.75	272.25	0.48	1.39	32.25	1.00
11	COBB	1759.37	26.75	81.00	127.50	218.00	0.41	1.20	29.10	1.00
12	DAVIS	1753.12	27.25	81.00	99.50	204.50	0.34	1.63	30.98	1.00
9	WILLIAMS	1653.12	24.25	78.50	129.50	225.50	0.44	1.71	39.65	1.00
13	IMPROVED PELICAN	1640.62	26.00	78.50	150.00	197.50	0.48	0.90	54.98	1.00
14	FORREST	1637.50	24.00	78.50	162.00	166.50	0.51	1.31	32.38	1.00
8	BOSSIER	1612.50	25.75	78.50	123.75	246.25	0.44	2.26	26.75	1.00
10	CLARK 63	1593.75	26.75	78.50	163.00	264.75	0.52	1.85	43.95	1.00
7	JUPITER	1565.62	26.50	119.00	115.50	229.00	0.39	1.64	69.57	2.00
6	PICKETT 71	1559.37	27.00	78.50	149.25	264.25	0.54	1.45	25.90	1.00
2	WOODWORTH	1537.50	26.25	78.75	145.00	137.50	0.43	1.25	37.35	1.00
3	BRAGG	1503.12	29.75	78.50	126.50	261.25	0.32	1.44	33.98	1.00
16	ESSEX	1453.12	25.50	78.50	141.25	249.50	0.42	1.89	26.88	1.00
5	HILL	1365.62	26.25	78.50	152.25	184.75	0.55	1.16	31.13	1.00
1	CALLAND	1331.25	26.50	78.50	126.50	203.75	0.45	1.57	40.45	1.00
GRAND MEAN		1596.29	26.25	81.36	136.37	221.73	0.44	1.53	37.46	1.06
STANDARD ERROR OF A VARIETY MEAN		152.24	1.17	0.87	19.79	32.23	0.07	0.20	3.25	0.00
COEFFICIENT OF VARIATION		19.07%	8.94%	2.13%	29.02%	29.07%	31.33%	26.40%	17.34%	0.00%
5% LSD VARIETY MEANS (*****=NS)		*****	*****	2.47	*****	*****	*****	0.58	9.25	0.00

C O R R E L A T I O N S ($t = \text{PROB} = .05$ $t^* = \text{PROB} = .01$)

YIELD KG/HA	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
-0.20	-0.20	-0.03	-0.28+	-0.15	-0.01	-0.01	-0.01
-0.06	1.00	1.00	-0.15	1.00	0.00	-0.12	-0.03
0.12	-0.28+	-0.15	1.00	0.00	0.08	-0.66++	-0.08
-0.01	0.17	0.00	-0.08	1.00	0.17	0.52++	0.02
-0.15	-0.24	-0.12	0.66++	0.17	0.17	-0.12	-0.08
-0.19	-0.06	0.03	0.08	0.08	0.52++	0.12	-0.09
-0.04	-0.02	0.65++	-0.01	0.01	-0.12	1.00	-0.10
-0.03	0.03	0.98++	-0.13	0.02	-0.09	0.06	-0.06
-0.03	0.03	0.98++	-0.13	0.02	-0.09	0.06	-0.06
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.08	-0.08	-0.29+	-0.09	-0.01	-0.04	-0.15	-0.29+
-0.13	-0.08	-0.14	-0.14	-0.01	-0.26+	0.18	-0.03
-0.13	-0.13	0.12	-0.10	0.14	-0.05	-0.05	-0.39++

TABLE 127 EXPERIMENT 174 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	COLUMBUS	1.00	300.00	11.90	17.08	1.00	38.5	21.9
4	RANSOM	1.00	300.00	12.03	17.25	1.00	38.1	24.3
11	COBB	1.00	300.00	14.25	16.40	1.00	36.6	24.3
12	DAVIS	1.00	300.00	11.43	15.68	1.00	39.7	22.0
9	WILLIAMS	1.00	300.00	8.80	18.15	1.00	37.8	23.0
13	IMPROVED PELICAN	1.00	300.00	16.05	12.73	1.00	39.6	22.3
14	PORREST	1.00	300.00	11.90	13.38	3.00	38.4	21.3
8	BOSSIER	1.00	300.00	11.20	15.60	1.00	40.1	21.1
1C	CLARK 63	1.00	300.00	9.75	15.25	2.00	37.3	23.3
7	JUPITER	2.00	300.00	14.40	14.78	3.00	35.6	24.0
6	PICKETT 71	1.00	300.00	10.65	14.48	1.00	39.6	22.6
2	WOODWORTH	1.00	300.00	10.13	15.68	1.00	38.0	22.5
3	BRAGG	1.00	300.00	10.85	16.18	1.00	41.1	21.3
16	ESSEX	1.00	300.00	13.18	15.93	1.00	39.3	33.7
5	HILL	1.00	300.00	11.08	14.65	2.00	36.8	21.3
1	CALLAND	1.00	300.00	8.97	17.63	1.00	37.3	21.5
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)								
YIELD	KG/HA	-0.03	0.00	0.36++	0.41++	-0.06	-0.13	
		0.03	0.00	-0.08	-0.08	-0.08	-0.13	
		0.98++	0.00	0.29+	0.58++			
		-0.13	0.00	0.09	-0.14	0.12		
		0.02	0.00	0.01	-0.01	-0.10		
		-0.09	0.00	-0.04	-0.26+	0.14		
		0.06	0.00	-0.15	0.18	-0.05		
		0.66++	0.00	0.29+	-0.03	0.39++		
		1.00++	0.00	0.27+	-0.13	-0.60++		
		1.00	0.00	0.27+	-0.13	-0.60++		
		0.00	1.00	0.00	0.00	0.00		
		0.27+	0.00	1.00	-0.19	0.12		
		-0.13	0.00	-0.19	1.00	-0.39++		
		0.60++	0.00	0.12	-0.39++	1.00		

TABLE 128 EXPERIMENT 664 YEAR 1976

REGION - ASIA
 SITE - ANGUNUKOLAPALESSA
 LATITUDE - 6 DEG. N
 COOPERATORS - A. SENTHINATHAN, R. RADHAKRISHNAN
 DATE PLANTED - MAY 8, 1976 DATE HARVESTED - AUGUST, 1976
 SOIL TYPE - SAND 58.4%, CLAY 41.6%, PH 6.0
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 961 MM
 NUMBER OF IRRIGATIONS - 16
 LOCAL VARIETIES - PB-1, SJ-2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB=.01)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	6610	6611	6612	6613	6614	6615	6616	6617	6618	6619	6620	6621	6622	6623	6624	6625	6626	6627	6628	6629	6630	6631	6632	6633	6634	6635	6636	6637	6638	6639	6640	6641	6642	6643	6644	6645	6646	6647	6648	6649	6650	6651	6652	6653	6654	6655	6656	6657	6658	6659	6660	6661	6662	6663	6664	6665	6666	6667	6668	6669	66610	66611	66612	66613	66614	66615	66616	66617	66618	66619	66620	66621	66622	66623	66624	66625	66626	66627	66628	66629	66630	66631	66632	66633	66634	66635	66636	66637	66638	66639	66640	66641	66642	66643	66644	66645	66646	66647	66648	66649	66650	66651	66652	66653	66654	66655	66656	66657	66658	66659	66660	66661	66662	66663	66664	66665	66666	66667	66668	66669	666610	666611	666612	666613	666614	666615	666616	666617	666618	666619	666620	666621	666622	666623	666624	666625	666626	666627	666628	666629	666630	666631	666632	666633	666634	666635	666636	666637	666638	666639	666640	666641	666642	666643	666644	666645	666646	666647	666648	666649	666650	666651	666652	666653	666654	666655	666656	666657	666658	666659	666660	666661	666662	666663	666664	666665	666666	666667	666668	666669	6666610	6666611	6666612	6666613	6666614	6666615	6666616	6666617	6666618	6666619	6666620	6666621	6666622	6666623	6666624	6666625	6666626	6666627	6666628	6666629	6666630	6666631	6666632	6666633	6666634	6666635	6666636	6666637	6666638	6666639	6666640	6666641	6666642	6666643	6666644	6666645	6666646	6666647	6666648	6666649	6666650	6666651	6666652	6666653	6666654	6666655	6666656	6666657	6666658	6666659	6666660	6666661	6666662	6666663	6666664	6666665	6666666	6666667	6666668	6666669	66666610	66666611	66666612	66666613	66666614	66666615	66666616	66666617	66666618	66666619	66666620	66666621	66666622	66666623	66666624	66666625	66666626	66666627	66666628	66666629	66666630	66666631	66666632	66666633	66666634	66666635	66666636	66666637	66666638	66666639	66666640	66666641	66666642	66666643	66666644	66666645	66666646	66666647	66666648	66666649	66666650	66666651	66666652	66666653	66666654	66666655	66666656	66666657	66666658	66666659	66666660	66666661	66666662	66666663	66666664	66666665	66666666	66666667	66666668	66666669	666666610	666666611	666666612	666666613	666666614	666666615	666666616	666666617	666666618	666666619	666666620	666666621	666666622	666666623	666666624	666666625	666666626	666666627	666666628	666666629	666666630	666666631	666666632	666666633	666666634	666666635	666666636	666666637	666666638	666666639	666666640	666666641	666666642	666666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TABLE 128 EXPERIMENT 664 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	HARDEE	1.00	102.00	64.82	17.68	3.75
4	IMPROVED PELICAN	1.00	252.75	19.58	13.00	2.25
12	WOODWORTH	1.00	209.25	20.73	18.38	3.25
7	DAVIS	1.00	188.00	26.05	18.73	2.75
14	PB-1	1.00	287.50	17.08	12.80	1.00
15	SJ-2	1.00	280.00	27.78	12.68	3.00
2	HAMPTON 266A	1.00	118.75	42.43	16.10	4.00
6	BOSSIER	1.00	252.25	21.78	15.60	3.00
8	UNKNOWN	1.00	248.00	29.35	13.43	2.25
13	WILLIAMS	1.00	244.50	17.15	19.25	2.50
10	COLUMBUS	1.00	191.75	30.58	15.13	3.50
5	COBB	1.00	86.75	49.68	15.98	3.75
9	FORREST	1.00	198.25	20.88	13.73	4.00
11	CLARK 63	1.00	279.75	15.98	15.78	2.50
1	JUPITER	1.00	265.50	26.23	13.50	5.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA						
DAYS TO FLOWER						
DAYS TO MATURITY						
NODULE NUMBER 1						
NODULE NUMBER 2						
NODULE WEIGHT 1						
NODULE WEIGHT 2						
PLANT HEIGHT						
LODGING						
SHATTER						
PLANTS HARVEST						
PODS PER PLANT						
100 SEED WEIGHT						
QUALITY OF SEED						

TABLE 129

EXPERIMENT 84

YEAR 1976

REGION - ASIA
 SITE - BANDARAWELA
 LATITUDE - 6 DEG. 50 MIN. N
 COOPERATOR - L.G. HERAT
 DATE PLANTED - MAY 5, 1976
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 199 MM
 NUMBER OF IRRIGATIONS - 8

COUNTRY - SRI LANKA
 ELEVATION - 1220 M
 LONGITUDE - 81 DEG. E

DATE HARVESTED - AUGUST, 1976
 P 25.0, K 25.0

GRAND MEAN
 VARIETY MEAN
 COEFFICIENT OF VARIATION
 5% LSD VARIETY MEANS (*****=NS)

250

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11	ESSEX	1462.79	34.00	106.00	78.75	129.00	0.44	1.94	54.25	1.00
1	CALLAND	1262.75	31.00	90.00	75.25	71.50	0.56	1.42	36.50	1.00
9	BEESON	1104.39	34.00	90.00	53.25	72.50	0.24	1.13	36.50	1.00
4	CUTLER 71	1071.05	34.00	90.00	92.75	100.50	0.45	1.17	42.00	1.00
13	AMSOY 71	1066.88	31.00	86.75	49.75	75.25	0.14	0.69	30.75	1.00
8	WELLS	1004.37	31.00	86.75	40.75	65.00	0.14	0.85	27.50	1.00
6	CLARK 63	975.19	31.00	90.00	65.00	67.25	0.45	1.29	35.50	1.00
10	COLUMBUS	933.52	34.00	95.25	68.50	101.00	0.33	1.39	36.00	1.00
2	WOODWORTH	929.35	27.00	87.75	64.50	64.50	0.41	1.12	32.75	1.00
5	WILLIAMS	908.51	34.00	91.75	71.75	75.25	0.35	0.89	29.00	1.00
12	CORSOY	879.34	31.00	96.00	60.00	70.00	0.25	0.81	26.25	1.00
15	HARK	875.17	27.00	86.75	41.75	74.75	0.24	0.93	29.25	1.00
14	RODGSON	762.65	31.00	83.50	60.00	62.25	0.27	0.57	20.75	1.00
16	STEELE	750.15	31.00	81.75	79.00	64.50	0.39	0.70	26.50	1.00
3	HILL	729.31	49.00	106.00	28.50	66.00	0.16	0.72	45.00	1.00
7	FORREST	654.30	49.00	106.00	31.50	57.25	0.19	0.97	47.75	1.00
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ** - PROB=.01)										
YIELD KG/HA	1.00	-0.20	0.18	0.50++	0.67++	0.55++	0.66++	0.56++	0.56++	0.00
DAYS TO FLOWER	-0.20	1.00	0.72++	-0.24	-0.05	-0.19	-0.04	-0.04	-0.51++	0.00
DAYS TO MATURITY	0.18	0.72++	1.00	-0.04	0.28+	0.02	0.30+	0.72++	0.26+	0.00
NODULE NUMBER 1	0.50++	-0.24	-0.04	1.00	0.56++	0.84++	0.54++	0.26+	0.26+	0.00
NODULE NUMBER 2	0.67++	-0.05	0.28+	0.56++	1.00	0.48++	0.79++	0.48++	0.48++	0.00
NODULE WEIGHT 1	0.55++	-0.19	0.02	0.84++	0.48++	1.00	0.63++	0.38++	0.38++	0.00
NODULE WEIGHT 2	0.66++	-0.04	0.30+	0.54++	0.79++	0.63++	1.00	0.56++	0.56++	0.00
PLANT HEIGHT	0.56++	0.51++	0.72++	0.26+	0.48++	0.38++	0.56++	1.00	0.51++	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.29++	0.04	0.17	0.05	0.11	0.16	0.21	0.21	0.21	0.00
PODS PER PLANT	0.41++	0.33++	0.55++	0.23	0.40++	0.13	0.24	0.52++	0.52++	0.00
100 SEED WEIGHT	0.42++	-0.37++	-0.03	0.26+	0.36++	0.29+	0.01	0.01	0.01	0.00
QUALITY OF SEED	-0.17	0.39++	0.41++	-0.17	-0.09	-0.18	-0.16	-0.16	-0.16	0.00

TABLE 129 EXPERIMENT 84 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
11	ESSEX	1.00	252.50	14.05	13.90	2.00
1	CALLAND	1.00	212.50	7.40	17.50	2.00
9	BEESON	1.00	205.00	8.32	15.30	2.00
4	CUTLER 71	1.00	220.00	8.78	16.28	2.00
13	AMSOY 71	1.00	175.00	10.20	13.88	2.00
8	WELLS	1.00	217.50	9.50	12.40	2.00
6	CLARK 63	1.00	205.00	7.30	14.53	2.00
10	COLUMBUS	1.00	206.75	9.13	15.15	2.00
2	WOODWORTH	1.00	202.50	9.15	13.53	2.00
5	WILLIAMS	1.00	206.25	7.85	15.98	2.00
12	CORSOY	1.00	201.25	11.93	17.05	3.00
15	HARK	1.00	180.00	8.50	13.73	2.00
14	HODGSON	1.00	186.25	10.33	13.53	2.00
16	STEELE	1.00	187.50	9.85	12.30	2.00
3	HILL	1.00	209.25	14.18	11.70	3.00
7	FORREST	1.00	187.00	11.38	11.65	2.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD	KG/HA	0.00	0.29*	0.41**	0.42**	-0.17
DAYS TO FLOWER	0.00	0.04	0.33**	-0.37**	0.39**	
DAYS TO MATURITY	0.00	0.17	0.55**	-0.03	0.41**	
NODULE NUMBER 1	0.00	0.05	0.23	0.37**	-0.17	
NODULE NUMBER 2	0.00	0.11	0.40**	0.26*	-0.09	
NODULE WEIGHT 1	0.00	0.11	0.13	0.36**	-0.18	
NODULE WEIGHT 2	0.00	0.16	0.24	0.29*	-0.16	
PLANT HEIGHT	0.00	0.21	0.52**	0.01	0.03	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.04	0.08	0.02	
PODS PER PLANT	0.00	-0.04	1.00	-0.07	0.36**	
100 SEED WEIGHT	0.00	0.08	-0.07	1.00	0.02	
QUALITY OF SEED	0.00	0.02	0.36**	0.02	1.00	

TABLE 130 EXPERIMENT 129 YEAR 1976

REGION - ASIA
 SITE - BANDARAWELA
 LATITUDE - 6 DEG. 50 MIN. N
 COOPERATOR - G.R. ALOYSIUS
 DATE PLANTED - NOVEMBER 9, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 452 MM
 NUMBER OF IRRIGATIONS - 1
 SUBSTITUTE VARIETIES - CUTLER 71, WELLS, BEESON, CORSOY, AMSOY 71, HODGSON,
 STEELE, HARK.

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	(* - PROB=.05 ++ - PROB=.01)
6	FORREST	1850.37	33.50	101.75	0.00	185.50	0.00	1.57	40.38	1.50	
8	ESSEX	1750.35	32.00	100.50	0.00	193.50	0.00	2.01	40.05	1.50	
7	COLUMBUS	1748.27	32.00	111.50	0.00	164.75	0.00	1.74	37.08	1.00	
3	HILL	1625.32	45.00	101.75	0.00	105.00	0.00	1.28	43.18	2.00	
4	WILLIAMS	1437.79	33.50	96.50	0.00	207.50	0.00	1.76	28.43	1.00	
5	CLARK 63	1399.45	32.00	110.00	0.00	166.25	0.00	1.91	33.88	1.00	
1	CALLAND	1379.44	32.00	110.25	0.00	101.50	0.00	1.68	32.25	1.00	
9	CUTLER 71	1373.19	35.00	112.50	0.00	134.00	0.00	1.54	31.30	1.00	
13	AMSOY 71	1248.17	32.00	95.75	0.00	176.75	0.00	1.33	23.78	1.00	
12	WOODWORTH	1177.32	32.00	93.50	0.00	136.00	0.00	1.52	25.05	1.00	
10	WELLS	1127.31	32.00	93.00	0.00	109.00	0.00	1.06	20.15	1.00	
15	HARK	1118.97	33.50	96.25	0.00	182.75	0.00	1.44	25.30	1.00	
16	STEELE	960.61	32.00	93.00	0.00	137.00	0.00	1.31	24.25	1.00	
14	HODGSON	568.86	35.00	119.00	0.00	102.50	0.00	0.83	21.30	1.00	
11	BEESON	339.65	36.50	119.00	0.00	132.75	0.00	1.64	28.98	1.00	
12	CORSOY	75.01	38.25	119.00	0.00	153.25	0.00	1.34	21.68	1.00	
GRAND MEAN		1198.76	34.14	104.58	0.00	149.25	0.00	1.50	29.81	1.13	
STANDARD ERROR OF A VARIETY MEAN		187.90	1.16	3.18	0.00	25.97	0.00	0.17	1.72	0.10	
STANDARD COEFFICIENT OF VARIATION		31.35%	6.81%	6.08%	0.00%	34.80%	0.00%	23.16%	11.52%	17.53%	
5% LSD VARIETY MEANS (**=***=NS)		535.23	3.31	9.06	0.00	*****	0.00	0.49	4.89	0.28	
CORRELATIONS											
YIELD	KG/HA	1.00	-0.07	-0.12	0.00	0.04	0.00	0.51++	0.75++	0.44++	
DAYS TO FLOWER		-0.07	1.00	0.26+	0.00	-0.18	0.00	-0.05	0.42++	0.42++	
DAYS TO MATURITY		-0.12	0.26+	1.00	0.00	-0.01	0.00	0.18	-0.13	-0.13	
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.04	-0.18	-0.01	0.00	1.00	0.00	0.48++	0.09	-0.16	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.51++	-0.05	0.18	0.00	0.48++	0.00	1.00	0.60++	0.06	
PLANT HEIGHT		0.75++	0.26+	0.13	0.00	0.09	0.00	0.60++	1.00	0.59++	
LOGGING		0.44++	0.42++	-0.13	0.00	-0.16	0.00	0.06	0.59++	1.00	
SHATTER		-0.12	-0.07	-0.19	0.00	-0.21	0.00	-0.27+	-0.21	-0.05	
PLANTS HARVEST		0.20	0.12	0.23	0.00	-0.07	0.00	0.02	0.22	0.08	
PODS PER PLANT		0.80++	-0.05	-0.11	0.00	0.01	0.00	0.46++	0.59++	0.34++	
100 SEED WEIGHT		0.04	-0.05	0.41++	0.00	-0.09	0.00	0.20	0.12	-0.21	
QUALITY OF SEED		-0.19	0.09	0.35++	0.00	0.08	0.00	0.09	-0.05	-0.16	

TABLE 130 EXPERIMENT 129 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	FORREST	1.00	472.50	9.32	16.95	3.00
8	ESSEX	1.00	530.25	9.28	15.88	2.25
7	COLUMBUS	1.00	470.75	9.52	18.00	2.25
3	HILL	1.00	439.25	9.40	14.25	1.75
4	WILLIAMS	1.00	439.50	6.75	19.55	1.25
5	CLARK 63	1.00	454.25	8.32	15.75	2.00
1	CALLAND	1.00	496.75	7.42	19.08	2.25
9	CUTLER 71	1.00	474.00	9.80	18.38	2.00
13	AMSOY 71	1.00	384.00	8.55	17.40	3.00
2	WOODWORTH	1.00	470.50	7.65	15.75	2.50
10	WELLS	1.25	481.00	8.02	13.38	2.25
15	HARK	1.00	446.50	7.45	16.20	2.75
16	STEELE	1.00	376.00	6.65	16.78	2.50
14	HODGSON	1.00	451.00	5.43	19.60	3.25
11	BEESON	1.00	430.25	4.40	20.00	3.25
12	CORSOY	1.00	549.00	1.48	16.08	4.00
	GRAND MEAN	1.02	460.34	7.47	17.06	2.52
	STANDARD ERROR OF A VARIETY MEAN	0.06	30.95	1.10	0.72	0.32
	COEFFICIENT OF VARIATION	12.31%	13.45%	29.55%	8.41%	25.80%
5%	LSD VARIETY MEANS (*****=NS)	*****	88.15	3.14	2.04	0.92
	CORRELATIONS (+ - PROB=.05)					++ - PROB=.01)
	YIELD KG/HA	-0.12	0.20	0.80++	0.04	-0.19
	DAYS TO FLOWER	-0.07	0.12	-0.05	-0.05	-0.09
	DAYS TO MATURITY	-0.19	0.23	-0.11	0.41++	0.35++
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 2	-0.21	-0.07	0.01	-0.09	0.08
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 2	-0.27+	0.02	0.46++	0.20	0.09
	PLANT HEIGHT	-0.21	0.22	0.59++	0.12	-0.05
	LODGING	-0.05	0.08	0.34++	-0.21	-0.16
	SHATTER	1.00	-0.10	-0.08	-0.17	-0.07
	PLANTS HARVEST	-0.10	1.00	-0.05	-0.11	0.17
	PODS PER PLANT	-0.08	-0.05	1.00	-0.01	-0.14
	100 SEED WEIGHT	-0.17	-0.11	-0.01	1.00	0.11
	QUALITY OF SEED	-0.07	0.17	-0.14	0.11	1.00

TABLE 131 EXPERIMENT 175 YEAR 1976

REGION - ASIA
 SITE - BANDARAWELA
 LATITUDE - 6 DEG. 51 MIN. N
 COOPERATOR - G.R. ALOSIUS
 DATE PLANTED - DECEMBER 27, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 150 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	PLANT HEIGHT	LODGING
15	ESSEX	1578.12	51.00	109.00	114.50	140.25	1.04	2.38
5	HILL	1490.62	57.00	109.00	59.50	97.25	0.65	1.73
11	DAVIS	1487.50	57.00	109.00	71.25	142.00	1.05	2.22
12	IMPROVED PELICAN	1487.50	57.00	109.00	49.00	123.00	0.59	2.30
13	FORREST	1484.37	49.00	109.00	45.75	111.50	0.52	1.99
14	COLUMBUS	1387.50	49.00	109.00	70.00	89.00	0.71	2.07
1	CALLAND	1353.12	42.00	109.00	69.75	86.25	0.92	1.48
10	COBB	1293.75	49.00	109.00	74.75	106.50	1.04	1.96
4	RANSON	1212.50	42.00	109.00	121.25	135.50	1.23	2.22
8	WILLIAMS	1190.62	45.00	109.00	124.75	102.50	1.02	1.61
9	CLARK 63	1184.37	45.00	109.00	97.50	113.50	1.12	2.34
7	BOSSIER	1150.00	42.00	109.00	99.75	94.00	1.16	1.55
6	PICKETT 71	1068.75	42.00	109.00	59.50	97.25	0.72	1.51
2	WOODWORTH	1062.50	42.00	109.00	72.50	102.50	0.82	1.11
3	BRAGG	843.75	45.00	109.00	93.50	134.00	1.00	2.14
STANDARD ERROR OF A VARIETY MEAN		1285.00	47.60	109.00	81.55	111.67	0.91	1.76
COEFFICIENT OF VARIATION		126.97	0.52	0.00	14.32%	16.89	0.16	0.31
5% LSD VARIETY MEANS (*****NS)		19.76%	2.17%	0.00%	35.12%	30.24%	35.65%	34.67%
5% LSD VARIETY MEANS (*****NS)		362.39	1.47	0.00	40.87	*****	*****	*****
CORRELATIONS ($+ - \text{PROB} = .05$ $++ - \text{PROB} = .01$)								
YIELD	KG/HA	1.00	0.33++	0.00	-0.35++	0.24	0.07	0.56++
DAYS TO FLOWER		-0.32++	1.00	-0.27+	-0.13	-0.27+	0.32+	0.51++
DAYS TO MATURITY		0.00	1.00	-0.00	0.00	0.00	-0.00	0.00
MODULE NUMBER 1		-0.35++	-0.27+	0.00	-0.03	-0.68++	-0.26+	-0.40++
MODULE NUMBER 2		0.24	0.13	0.00	-0.03	1.00	-0.25	0.71++
NODULE WEIGHT 1		0.07	-0.27+	0.00	-0.68++	0.25	1.00	-0.26+
NODULE WEIGHT 2		0.56++	0.32+	0.00	-0.26+	-0.71++	0.07	0.50++
PLANT HEIGHT		0.51++	0.51++	0.00	-0.40++	-0.20	-0.26+	1.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.30+	-0.19	0.00	-0.06	0.26+	0.24	0.08
PODS PER PLANT		0.54++	0.65++	0.00	-0.37++	0.08	-0.40++	0.61++
100 SEED WEIGHT		0.04	-0.48++	0.00	0.11	0.18	0.28+	-0.27+
QUALITY OF SEED		0.12	-0.04	0.00	-0.11	0.05	0.08	0.17

TABLE 131 EXPERIMENT 175 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	ESSEX	1.00	142.50	14.43	17.15	2.25
5	HILL	1.00	109.75	19.13	13.48	2.00
11	DAVIS	1.00	135.00	20.15	16.50	2.50
12	IMPROVED PELICAN	1.00	131.50	22.80	12.68	2.25
13	FORREST	1.00	111.25	18.65	15.43	2.50
14	COLUMBUS	1.00	123.25	21.63	16.53	2.00
1	CALLAND	1.00	161.75	13.20	17.68	2.75
10	COBB	1.00	107.75	15.28	16.80	2.00
4	RANSOM	1.00	131.25	11.43	17.28	2.25
8	WILLIAMS	1.00	135.50	11.23	18.03	2.00
9	CLARK 63	1.00	139.00	14.38	17.38	2.00
7	BOSSIER	1.00	119.25	13.53	15.43	2.00
6	PICKETT 71	1.00	122.25	10.10	17.53	2.50
2	WOODWORTH	1.00	134.75	12.80	16.45	2.00
3	BRAGG	1.00	136.25	10.23	21.03	2.50
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.30+	0.54++	0.04	0.12
DAYS TO FLOWER	0.00	-0.19	0.65++	-0.48++	-0.04	
DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 1	0.00	-0.06	-0.37++	0.11	-0.11	
NODULE NUMBER 2	0.00	0.26+	0.08	0.18	0.05	
NODULE WEIGHT 1	0.00	0.24	-0.28+	0.28+	0.08	
NODULE WEIGHT 2	0.00	0.26+	0.40++	0.16	0.02	
PLANT HEIGHT	0.00	0.08	0.61++	-0.27+	0.17	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.17	0.30+	0.26+	
PODS PER PLANT	0.00	-0.17	1.00	-0.39++	-0.01	
100 SEED WEIGHT	0.00	0.30+	-0.39++	1.00	0.20	
QUALITY OF SEED	0.00	0.26+	-0.01	0.20	1.00	

TABLE 132 EXPERIMENT 133 YEAR 1976

REGION - ASIA
 SITE - GANNORUWA
 LATITUDE - 7 DEG. 15 MIN. N
 COOPERATOR - C.D. DHARMASENA
 DATE PLANTED - JUNE 29, 1976
 SOIL TYPE - CLAY LOAM, PH 6.6
 FERTILIZER USED (KG./HA.) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 586 MM
 NUMBER OF IRRIGATIONS - 33
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 457 M
 LONGITUDE - 81 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

GRAND MEAN 2154.38
 STANDARD ERROR OF A VARIETY MEAN 291.97
 5% LSD COEFFICIENT OF VARIATION 27.10%
 5% LSD VARIETY MEANS (*****=NS) *****

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ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
3	HARDEE	2598.44	34.00	98.25	200.75	293.75	0.37	1.18	38.95	1.00
4	IMPROVED PELICAN	2566.35	35.00	95.00	130.00	363.75	0.25	1.03	69.82	1.00
15	SJ-2	2454.66	36.00	97.25	147.00	315.75	0.28	0.92	69.10	1.00
13	WILLIAMS	2246.28	25.00	88.00	167.75	312.75	0.24	1.23	43.98	1.00
7	DAVIS	2208.77	34.00	101.25	115.00	210.75	0.23	1.03	30.00	1.00
9	FORREST	2208.77	30.75	92.00	99.75	276.75	0.25	1.00	36.93	1.00
14	PB-1	2175.43	34.00	88.00	189.75	305.00	0.40	1.28	58.08	1.00
6	BRAGG	2162.10	28.00	89.75	79.75	360.00	0.15	1.44	36.15	1.00
5	BOSSIER	2097.50	33.50	95.00	164.00	281.25	0.40	0.90	43.75	1.00
1	JUPITER	2054.58	44.00	113.50	169.50	319.25	0.34	1.10	78.85	2.00
12	BONUS	2035.82	25.00	79.00	87.50	318.75	0.13	1.12	40.28	1.00
11	CLARK 63	1973.31	25.00	79.00	83.00	154.00	0.12	0.52	41.35	1.00
2	HAMPTON 266A	1914.13	31.25	90.25	154.25	314.50	0.29	1.27	33.15	1.00
10	HILL	1864.96	33.00	88.00	125.00	296.00	0.26	1.34	41.23	1.00
8	TRACY	1754.52	26.00	79.00	213.50	301.75	0.27	1.28	35.63	1.00
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA	1.00	0.14	0.20	0.18	0.24	0.19	0.29*	0.40++	-0.05	
DAYS TO FLOWER	0.14	1.00	0.88++	0.18	0.09	0.30+	-0.00	0.61++	0.65++	
DAYS TO MATURITY	0.20	0.88++	1.00	0.15	0.05	0.28+	-0.01	0.47++		
NODULE NUMBER 1	0.18	0.18	0.15	1.00	0.46++	0.83++	0.62++		0.11	
NODULE NUMBER 2	0.24	0.09	0.05	0.46++	1.00	0.43++	0.75++	0.23	0.06	
NODULE WEIGHT 1	0.19	0.30+	0.28+	0.83++	0.43++	1.00	0.61++	0.26+	0.11	
NODULE WEIGHT 2	0.29+	-0.00	-0.01	0.62++	0.75++	0.61++	-0.05	-0.01		
PLANT HEIGHT	0.40++	0.61++	0.47++	0.19	0.23	0.26+	0.05	1.00		
LODGING	-0.05	0.65++	0.65++	0.11	0.06	0.11	-0.01	0.54++	1.00	
SHATTER	0.16	0.09	0.23	0.01	-0.12	0.09	-0.03	-0.18	-0.05	
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PODS PER PLANT	0.47++	0.35++	0.18	0.27+	0.20	0.28+	-0.19	0.66++	0.24	
100 SEED WEIGHT	0.28+	-0.38++	-0.07	-0.08	-0.08	-0.20	0.11	-0.34++	-0.06	
QUALITY OF SEED	0.03	0.19	0.33++	-0.06	0.02	-0.06	0.03	0.14	0.66++	

TABLE 132 EXPERIMENT 133 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3 HARDEE	1.00	300.00	19.25	15.80	1.50	
4 IMPROVED PELICAN	1.00	300.00	20.20	13.33	1.00	
15 SJ-2	1.00	300.00	23.35	13.60	1.00	
13 WILLIAMS	1.00	300.00	10.00	19.88	2.25	
7 DAVIS	1.50	300.00	13.33	18.78	2.75	
9 FORREST	1.00	300.00	14.75	14.28	1.25	
14 PB-1	1.00	300.00	24.10	11.13	1.00	
6 BRAGG	1.00	300.00	13.20	17.70	2.00	
5 BOSSIER	1.00	300.00	12.70	14.93	1.25	
1 JUPITER	1.00	300.00	22.08	15.20	4.50	
12 BONUS	1.00	300.00	18.65	16.83	3.00	
11 CLARK 63	1.00	300.00	17.35	16.13	1.75	
2 HAMPTON 266A	1.00	300.00	14.83	18.00	1.50	
10 HILL	1.00	300.00	14.33	14.88	1.25	
8 TRACY	1.00	300.00	16.85	16.38	1.50	
STANDARD ERROR OF A VARIETY MEAN	1.03	300.00	17.00	15.79	1.83	
COEFFICIENT OF VARIATION	0.07	0.00	1.76	0.76	0.31	
5% LSD VARIETY MEANS (*****=NS)	14.43%	0.00%	20.68%	9.67%	34.26%	
0.21	0.00	5.02	2.18	0.90		
C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)			
YIELD KG/HA	0.16	0.00	0.47++	0.28+	0.03	
DAYS TO FLOWER	0.09	0.00	0.35++	-0.38++	0.19	
DAYS TO MATURITY	0.23	0.00	0.18	-0.07	0.33++	
NODULE NUMBER 1	0.01	0.00	0.27+	-0.08	-0.06	
NODULE NUMBER 2	-0.12	0.00	0.20	-0.08	0.02	
NODULE WEIGHT 1	0.09	0.00	0.28+	-0.20	-0.06	
NODULE WEIGHT 2	0.03	0.00	0.19	0.11	0.03	
PLANT HEIGHT	-0.18	0.00	0.66++	-0.34++	0.14	
LODGING	-0.05	0.00	0.24	-0.06	0.66++	
SHATTER	1.00	0.00	-0.05	0.20	0.29+	
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	
PODS PER PLANT	-0.05	0.00	1.00	-0.29+	0.03	
100 SEED WEIGHT	0.20	0.00	-0.29+	1.00	0.35++	
QUALITY OF SEED	0.29+	0.00	0.03	0.35++	1.00	

TABLE 133

EXPERIMENT 12 YEAR 1976

REGION - ASIA
 SITE - GANNORUWA
 LATITUDE - 7 DEG. 15 MIN. N
 COOPERATOR - C.D. DHARMSENA
 DATE PLANTED - JULY 1, 1976
 SOIL TYPE - CLAY LOAM, PH 6.6
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 585 MM
 NUMBER OF IRRIGATIONS - 33

COUNTRY - SRI LANKA

ELEVATION - 457 M

LONGITUDE - 81 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

NUMBER OF IRRIGATIONS - 33

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	DAVIS	3803.12	31.50	99.50	144.00	265.75	0.25	1.47	38.65	1.50
14	FORREST	3728.12	31.25	94.75	134.25	198.50	0.17	1.03	44.20	1.00
11	COBB	3543.75	30.00	99.25	128.50	255.50	0.20	1.39	39.38	1.25
16	ESSEX	3331.25	29.50	94.50	186.50	277.00	0.32	0.97	37.28	1.00
6	PICKETT 71	3281.25	30.50	94.25	198.25	312.25	0.34	1.39	30.78	1.25
13	IMPROVED PELICAN	3203.12	38.00	95.50	184.75	296.75	0.31	1.27	77.98	1.00
1	CALLAND	3153.12	30.25	94.00	62.00	197.00	0.11	1.62	47.98	1.25
15	COLUMBUS	3081.25	31.00	92.50	106.75	246.25	0.19	1.11	49.85	1.00
5	HILL	3015.62	35.25	93.50	122.00	188.50	0.17	1.04	40.60	1.00
3	BRAGG	3000.00	30.00	95.25	122.00	278.50	0.20	0.90	37.25	2.00
9	WILLIAMS	2984.37	28.00	86.00	104.75	191.75	0.15	0.99	48.65	1.00
8	BOSSIER	2900.00	33.00	97.75	127.25	307.25	0.27	1.27	36.85	1.25
4	RANSOM	2856.25	30.00	101.75	196.50	292.00	0.19	0.95	31.65	1.75
10	CLARK 63	2750.00	30.25	86.00	73.00	151.50	0.11	0.72	43.40	1.00
2	WOODWORTH	2415.62	28.50	77.00	77.50	144.25	0.11	0.55	39.70	1.00
7	JUPITER	2140.62	42.00	109.00	203.50	298.25	0.27	1.09	77.95	3.25
GRAND MEAN		3074.22	31.81	94.41	135.72	243.81	0.21	1.11	45.13	1.34
STANDARD ERROR OF A VARIETY MEAN		200.91	1.06	0.98	20.04	30.47	0.03	0.20	2.61	0.39
COEFFICIENT OF VARIATION		13.07%	6.64%	2.08%	29.53%	24.99%	32.10%	36.71%	11.55%	58.11%
5% LSD VARIETY MEANS (*****=NS)		572.28	3.01	2.79	57.08	86.79	0.10	0.58	7.42	1.11
CORRELATIONS										
(* - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA	1.00	-0.27*	0.12	0.06	0.18	0.28+	0.17	0.05	-0.17	0.33++
DAYS TO FLOWER	-0.27*	1.00	0.51++	0.35++	0.14	0.25+	0.06	0.59++	0.44++	
DAYS TO MATURITY	0.12	0.51++	1.00	0.50++	0.50++	0.39++	0.26+	0.26+		
NODULE NUMBER 1	0.06	0.35++	0.50++	1.00	0.48++	0.75++	0.16	0.19	0.28+	
NODULE NUMBER 2	0.18	0.14	0.50++	0.48++	1.00	0.58++	0.56++	0.12	0.15	
NODULE WEIGHT 1	0.28+	0.25+	0.39++	0.75++	0.58++	1.00	0.37++	0.22	0.07	
NODULE WEIGHT 2	0.17	0.06	0.26+	0.16	0.56++	0.37++	1.00	0.07	-0.05	
PLANT HEIGHT	0.05	0.59++	0.26+	0.19	0.12	0.22	0.07	1.00	0.23	
LODGING	-0.17	0.33++	0.44++	0.28+	0.15	0.07	-0.05	0.23	1.00	
SHATTER	-0.31+	-0.08	0.20	-0.01	0.07	0.06	-0.22	-0.04	-0.03	
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PODS PER PLANT	0.14	0.38++	0.19	0.35++	0.24	0.46++	-0.23	-0.44++	-0.03	
100 SEED WEIGHT	0.39++	-0.47++	0.16	-0.25+	0.03	0.17	-0.39++	0.01	0.15	
QUALITY OF SEED	-0.36++	0.26+	0.48++	0.17	0.17	-0.08	0.03	0.03	0.48++	

TABLE 133 EXPERIMENT 12 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	DAVIS	1.25	200.00	18.93	21.25	1.25
14	FORREST	1.00	200.00	20.98	17.85	1.00
11	COBB	1.75	200.00	22.75	21.30	1.75
16	ESSEX	1.00	200.00	21.77	18.15	1.00
6	PICKETT 71	1.00	200.00	16.68	19.45	1.00
13	IMPROVED PELICAN	1.00	200.00	26.78	15.58	1.00
CALLAND		1.00	200.00	16.83	22.20	3.00
15	COLUMBUS	1.00	200.00	16.35	18.43	1.00
5	HILL	1.00	200.00	19.00	18.03	1.00
3	BRAGG	1.00	200.00	14.83	20.83	2.00
9	WILLIAMS	1.00	200.00	13.68	20.55	1.00
8	BOSSIER	1.00	200.00	17.55	19.65	2.00
4	RANSOM	1.00	200.00	16.80	21.28	4.00
10	CLARK 63	1.00	200.00	16.73	18.78	1.00
2	WOODWORTH	1.00	200.00	20.45	17.23	2.00
7	JUPITER	1.00	200.00	22.78	16.58	4.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 +* - PROB=.01)						
YIELD	KG/HA	0.31+	0.00	0.14	0.39++	-0.36++
DAYS TO FLOWER	-0.08	0.00	0.38++	-0.47++	0.26+	
DAYS TO MATURITY	0.20	0.00	0.19	0.16	0.48++	
NODULE NUMBER 1	-0.01	0.00	0.35++	-0.25+	0.17	
NODULE NUMBER 2	-0.07	0.00	0.24	0.03	0.17	
NODULE WEIGHT 1	0.06	0.00	0.46++	-0.10	-0.08	
NODULE WEIGHT 2	0.22	0.00	0.23	0.17	0.03	
PLANT HEIGHT	-0.04	0.00	0.44++	-0.39++	0.15	
LODGING	-0.03	0.00	-0.03	0.01	0.48++	
SHATTER	1.00	0.00	0.19	0.32++	0.0	
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	
PODS PER PLANT	0.19	0.00	1.00	-0.43++	-0.01	
100 SEED WEIGHT	0.32++	0.00	-0.43++	1.00	0.18	
QUALITY OF SEED	0.0	0.00	-0.01	0.18	1.00	

TABLE 134 EXPERIMENT 127 YEAR 1976

REGION - ASIA
 SITE - GANNORUWA
 LATITUDE - 7 DEG. 15 MIN. N
 COOPERATOR - CECIL D. DHARMASENA
 DATE PLANTED - DECEMBER 17, 1976
 SOIL TYPE - CLAY LOAM, PH 6.6
 FERTILIZER USED - N 20.0, P 80.0, K 80.0
 AMOUNT OF MOISTURE - 127 MM
 LOCAL VARIETIES - PB-1, LOCAL

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	FORREST	5375.62	29.25	98.00	174.25	499.50	0.53	3.88	42.87	1.00
12	DAVIS	4729.37	31.75	103.75	132.25	341.75	0.50	2.41	38.09	1.00
6	PICKETT 71	4334.37	28.75	90.50	191.50	285.50	0.77	2.53	34.29	1.50
1	CALLAND	4320.00	28.00	91.25	96.75	303.25	0.30	3.32	40.03	1.75
11	COBB	4258.12	28.25	108.00	141.75	346.75	0.52	3.41	31.24	1.00
13	IMPROVED PELICAN	4202.50	34.75	92.00	186.75	394.75	0.68	2.61	53.43	1.50
10	CLARK 63	4088.75	28.00	86.00	142.00	337.50	0.42	2.90	41.90	1.75
16	LOCAL	4042.50	52.25	116.00	360.50	520.75	2.12	1.89	10.63	3.50
7	JUPITER	4025.00	49.50	116.00	279.50	630.00	0.99	2.70	77.15	2.25
8	BOSSIER	3991.87	28.00	101.00	142.75	394.75	0.62	3.96	28.74	1.00
5	HILL	3910.00	32.75	90.50	245.00	441.75	0.58	2.65	44.34	2.00
9	WILLIAMS	3823.12	28.00	85.00	233.00	443.75	0.66	3.40	38.46	1.50
15	PB-1	3693.75	31.25	86.00	185.00	611.75	0.78	3.48	47.47	1.75
4	RANSOM	3560.62	28.00	108.00	125.75	441.00	0.56	2.92	27.40	1.00
3	BRAGG	3547.50	28.00	94.25	133.50	554.50	0.46	4.36	33.70	1.00
2	WOODWORTH	3050.00	28.00	81.00	141.75	277.50	0.38	2.24	33.06	1.00
GRAND MEAN		4059.57	32.16	96.70	182.00	426.55	0.68	3.04	44.91	1.53
STANDARD ERROR OF A VARIETY MEAN		234.63	0.37	0.87	27.46	59.64	0.13	0.32	2.43	0.27
COEFFICIENT OF VARIATION		11.56%	2.31%	1.81%	30.17%	27.97%	37.32%	21.14%	10.81%	34.68%
5% 1ST VARIETY MEANS (*****=NS)		668.32	1.06	2.49	78.21	169.89	0.36	0.92	6.91	0.76

CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.05	0.20	0.02	0.04	-0.37++	-0.74++	0.02	-0.69++	-0.27+	-0.33++	-0.48++	-0.50++	-0.68++
0.05	1.00	0.64++	1.00	0.31+	0.26+	0.48++	-0.27+	0.81++	-0.22	0.69++	0.48++	-0.22	-0.27+
0.20	0.64++	1.00	0.31+	1.00	0.27+	1.00	0.00	0.35++	0.52++	0.34++	0.12	0.04	0.15
0.02	0.69++	0.31+	0.26+	0.27+	0.81++	0.35++	1.00	0.00	0.13	0.78++	0.56++	-0.13	-0.36++
0.02	0.69++	0.31+	0.26+	0.27+	0.81++	0.35++	1.00	0.00	0.13	0.78++	0.56++	-0.13	-0.36++
0.02	0.69++	0.31+	0.26+	0.27+	0.81++	0.35++	1.00	0.00	0.13	0.78++	0.56++	-0.13	-0.36++
0.00	0.68++	0.27+	0.48++	0.12	0.56++	0.36++	0.34++	0.78++	0.00	0.78++	0.60++	0.00	0.00
0.00	0.68++	0.27+	0.48++	0.12	0.56++	0.36++	0.34++	0.78++	0.00	0.78++	0.60++	0.00	0.00
-0.16	-0.11	-0.15	-0.06	-0.08	-0.01	-0.01	-0.01	-0.01	-0.16	-0.16	-0.22	-0.22	-0.22
-0.33++	0.01	-0.22	0.13	0.03	0.05	0.02	0.02	0.02	0.04	0.04	0.15	0.15	0.15
0.16	0.16	0.53++	0.59++	0.26+	0.81++	0.63++	0.28+	0.28+	-0.56++	-0.56++	-0.47++	-0.47++	-0.47++
0.00	0.45++	0.00	-0.47++	-0.18	-0.15	-0.14	0.12	-0.07	-0.12	-0.12	0.01	0.01	0.01
0.03	0.33++	0.03	0.33++	-0.15	-0.15	-0.15	-0.14	-0.14	-0.07	-0.07	-0.07	-0.07	-0.07

TABLE 134 EXPERIMENT 127 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	FORREST	1.25	275.50	20.10	18.59	1.25	37.5	21.5
12	DAVIS	1.25	227.50	16.20	21.80	1.00	36.1	23.0
6	PICKETT 71	1.25	300.00	16.45	17.84	1.00	36.6	22.9
1	CALLAND	1.00	300.00	12.98	21.09	2.25	37.2	21.5
11	COBB	1.25	281.75	19.38	20.68	2.75	36.0	22.6
13	IMPROVED PELICAN	1.25	299.50	19.15	14.94	1.00	38.8	22.7
10	C L A R K 63	1.00	300.00	14.08	18.00	1.00	36.0	23.2
16	LOCAL	1.00	297.50	47.60	9.20	1.25	42.9	16.6
7	JUPITER	1.00	290.00	18.30	20.73	1.75	38.2	23.7
8	BOSSIER	1.25	296.25	13.85	19.10	1.25	37.4	22.5
5	HILL	1.25	297.75	14.85	18.11	1.00	35.4	21.9
9	WILLIAMS	1.00	300.00	13.40	19.49	1.00	36.8	23.5
15	PB-1	1.50	296.00	20.38	13.06	1.00	39.4	18.2
4	RANSOM	1.25	298.50	15.58	17.88	1.00	34.7	25.7
3	BRAGG	1.25	298.75	13.03	21.15	1.50	38.7	22.2
2	WOODWORTH	1.25	300.00	11.73	16.41	1.00	34.4	22.4
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LST VARIETY MEANS (*****=NS) *****								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.01	-0.33++	0.16	0.24	0.13		
DAYS TO FLOWER	-0.16	0.01	0.72++	-0.45++	0.03			
DAYS TO MATURITY	-0.11	-0.22	0.53++	0.00	0.33++			
ODULE NUMBER 1	-0.15	0.13	0.59++	-0.47++	-0.15			
ODULE NUMBER 2	0.06	0.03	0.26+	-0.18	-0.07			
ODULE WEIGHT 1	-0.08	0.05	0.83++	-0.63++	-0.14			
ODULE WEIGHT 2	-0.01	-0.02	-0.20	0.28+	0.12			
PLANT HEIGHT	-0.16	0.04	0.81++	-0.56++	-0.00			
LODGING	-0.22	0.15	0.60++	-0.47++	-0.01			
SHATTER	1.00	-0.23	-0.01	0.00	-0.05			
PLANTS HARVEST	-0.23	1.00	-0.03	-0.28+	0.00			
PODS PER PLANT	-0.01	-0.03	1.00	-0.68++	-0.02			
100 SEED WEIGHT	0.00	-0.28+	-0.68++	1.00	0.37++	1.00		
QUALITY OF SEED	-0.05	0.00	-0.02	0.37++				

TABLE 135 EXPERIMENT 665

YEAR 1976

REGION - ASIA
 SITE - KILLINGCHHI
 LATITUDE - 9 DEG. N
 COOPERATOR - N. KANAGANAYAGAM
 DATE PLANTED - MAY 20, 1976
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HA) - N 20
 AMOUNT OF MOISTURE - 80 MM
 NUMBER OF IRRIGATIONS - SEVERAL
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
ELEVATION - 9 M
LONGITUDE - 80 DEG. E
DATE HARVESTED - SEPTEMBER, 1976
-0, K 40.0

COUNTRY - SRI LANKA
ELEVATION - 9 M
LONGITUDE - 80 DEG.

TABLE 135 EXPERIMENT 665 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	WILLIAMS	1.00	274.00	29.15	20.08	1.00
6	BRAGG	1.00	201.50	17.33	21.44	1.00
15	SJ-2	1.00	225.25	28.20	15.79	1.00
7	DAVIS	1.00	210.25	18.13	21.38	1.00
14	PB-1	1.00	268.50	27.05	13.08	1.00
1	JUPITER	1.00	222.25	29.20	23.22	1.00
3	HARDEE	1.00	211.00	26.63	17.04	1.00
11	CLARK 63	1.00	289.75	30.03	17.33	1.00
8	TRACY	1.00	273.75	19.40	23.27	1.00
5	BOSSIER	1.00	153.00	17.95	19.77	1.00
9	FORREST	1.00	213.25	16.93	15.04	1.00
4	IMPROVED PELICAN	1.00	252.50	39.95	15.80	1.00
2	HAMPTON 266A	1.00	129.75	21.53	24.16	1.00
12	BONUS	1.00	157.25	40.15	19.36	1.00
10	HILL	1.00	226.00	25.83	17.56	1.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (******=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.42++	-0.12	-0.02	0.00
DAYS TO FLOWER	0.00	0.04	0.15	-0.17	0.00	
DAYS TO MATURITY	0.00	-0.32+	-0.12	0.32+	0.00	
NODULE NUMBER 1	0.00	0.20	0.08	0.03	0.00	
NODULE NUMBER 2	0.00	0.29+	0.02	-0.21	0.00	
NODULE WEIGHT 1	0.00	-0.06	-0.12	0.27+	0.00	
NODULE WEIGHT 2	0.00	0.35++	0.53++	-0.26+	0.00	
PLANT HEIGHT	0.00	0.24	0.39++	-0.28+	0.00	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.14	-0.24	0.00	
PODS PER PLANT	0.00	0.14	1.00	-0.25	0.00	
100 SEED WEIGHT	0.00	-0.24	-0.25	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE 136 EXPERIMENT 177 YEAR 1976

REGION - ASIA
 SITE - KILINOCHCHI
 LATITUDE - 9 DEG. 2 MIN. N
 COOPERATOR - N. KANAGANA YAGAM
 DATE PLANTED - JANUARY 12, 1977
 SOIL TYPE - SAND
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 97 MM

COUNTRY - SRI LANKA
 ELEVATION - 9 M
 LONGITUDE - 80 DEG. 5 MIN. E
 DATE HARVESTED - APRIL, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	3796.33	39.25	114.00	211.00	468.00	0.00	0.00	85.50	1.00
12	DAVIS	3488.46	31.50	106.50	209.50	426.75	0.00	0.00	42.00	1.00
9	WILLIAMS	3415.42	27.50	100.25	268.75	418.50	0.00	0.00	59.00	1.00
10	CLARK 63	3157.35	27.00	97.50	179.50	228.00	0.00	0.00	55.50	1.00
4	RANSOM	3121.88	28.00	111.50	209.25	426.75	0.00	0.00	32.25	1.00
14	FORREST	3119.79	30.00	103.50	218.75	381.00	0.00	0.00	38.50	1.00
1	CALLAND	3062.95	26.75	101.00	163.00	239.00	0.00	0.00	54.00	1.00
3	BRAGG	3061.08	27.50	104.00	131.75	281.75	0.00	0.00	37.00	1.00
13	IMPROVED PELICAN	3027.27	34.75	111.25	170.00	382.75	0.00	0.00	93.50	1.00
15	COLUMBUS	2920.85	27.00	100.00	183.25	253.25	0.00	0.00	51.00	1.00
2	WOODWORTH	2743.47	26.50	97.00	178.00	183.75	0.00	0.00	45.50	1.00
11	COBB	2726.48	28.00	104.00	167.50	221.25	0.00	0.00	32.75	1.00
16	ESSEX	2660.69	27.25	108.00	243.75	447.25	0.00	0.00	28.50	1.00
8	BOSSIER	2617.87	27.00	99.75	291.50	402.75	0.00	0.00	48.50	1.00
6	PICKETT 71	2577.91	26.75	101.25	165.50	314.00	0.00	0.00	28.75	1.00
5	HILL	2270.45	32.50	98.75	198.75	275.50	0.00	0.00	34.25	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION (%)										
5% LSD VARIETY MEANS (*****-NS)										

CORRELATIONS (+ - PROB=.05 ** - PROB=.01)										
YIELD KG/HA	1.00	0.32+	0.03	0.26+	0.00	0.00	0.00	0.00	0.40++	0.00
DAYS TO FLOWER	0.32+	1.00	0.61++	0.36++	0.00	0.00	0.00	0.00	0.62++	0.00
DAYS TO MATURITY	0.32+	0.61++	1.00	0.01	0.46++	0.00	0.00	0.00	0.33++	0.00
MODULE NUMBER 1	0.03	0.04	0.01	1.00	0.64++	0.00	0.00	0.01	0.00	0.00
MODULE NUMBER 2	0.26+	0.36++	0.46++	0.64++	1.00	0.00	0.00	0.14	0.00	0.00
MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	0.40++	0.62++	0.33++	0.01	0.14	0.00	0.00	1.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.26+	-0.14	0.07	0.26+	0.32+	0.00	0.00	-0.04	0.00	0.00
PODS PER PLANT	0.28+	0.59++	0.48++	-0.07	0.20	0.00	0.00	-0.75++	0.00	0.00
100 SEED WEIGHT	0.32++	-0.19	0.03	0.07	0.03	0.00	0.00	-0.20	0.00	0.00
QUALITY OF SEED	-0.19	-0.10	0.09	0.00	-0.03	0.00	0.00	-0.40++	0.00	0.00

TABLE 136 EXPERIMENT 177 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	JUPITER	1.00	192.75	34.15	23.34	1.00
1.2	DAVIS	1.00	194.75	28.45	22.23	1.50
9	WILLIAMS	1.00	198.75	25.35	22.40	1.00
10	CLARK 63	1.00	193.00	26.73	21.73	1.00
4	RANSOM	1.00	199.00	22.70	23.46	2.00
14	FORREST	1.00	198.75	26.25	18.99	2.00
1	CALLAND	1.00	199.50	24.63	21.64	1.50
3	BRAGG	1.00	196.75	23.73	22.62	2.00
13	IMPROVED PELICAN	1.00	191.25	50.10	17.30	1.00
15	COLUMBUS	1.00	196.00	29.90	21.96	1.00
2	WOODWORTH	1.00	191.00	22.58	21.06	1.00
11	COBB	1.00	185.00	25.68	22.09	4.00
16	ESSEX	1.00	198.25	24.48	21.48	2.00
8	BOSSIER	1.00	193.50	21.93	22.27	2.00
6	PICKETT 71	1.00	191.25	22.10	21.30	1.00
5	HILL	1.00	190.75	24.00	20.08	2.00
STANDARD ERROR OF A VARIETY MEAN						
0.00						
COEFFICIENT OF VARIATION						
0.00%						
5% 1SE VARIETY MEANS (*****=NS)						

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.00	0.26+	0.28+	0.32++	-0.19
DAYS TO FLOWER		0.00	-0.14	-0.59++	-0.19	-0.10
DAYS TO MATURITY		0.00	0.07	0.48++	0.03	0.09
NODULE NUMBER 1		0.00	0.26+	-0.07	0.07	0.00
NODULE NUMBER 2		0.00	0.32+	-0.20	0.03	-0.03
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	-0.04	0.75++	-0.20	-0.40++
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.15	0.06	-0.19
PODS PER PLANT		0.00	-0.15	1.00	-0.38++	-0.19
100 SEED WEIGHT		0.06	-0.06	1.00	0.05	0.05
QUALITY OF SEED		0.00	-0.19	0.05	1.00	

TABLE 137

EXPERIMENT 173

YEAR 1976

REGION - ASIA

SITE - Maha Illuppallama

LATITUDE - 8 DEG. 5 MIN. N

COOPERATOR - P. WEERASINGHE

DATE PLANTED - DECEMBER 17, 1976

SOIL TYPE - SANDY CLAY LOAM, PH 6.4

FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0

AMOUNT OF MOISTURE - 312 MM

NUMBER OF IRRIGATIONS - 5

COUNTRY - SRI LANKA

ELEVATION - 138 M

LONGITUDE - 80 DEG. 28 MIN. E

DATE HARVESTED - MARCH, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
12	DAVIS	2465.62	28.25	91.00	101.50	182.25	0.11	1.59	26.08	1.00
5	HILL	2128.12	28.50	79.00	113.00	115.50	0.48	1.18	27.90	1.00
9	WILLIAMS	2103.12	22.25	79.00	94.25	126.75	0.17	1.09	29.63	1.00
1	COBB	2056.25	24.25	88.00	110.00	135.00	0.20	1.14	27.13	1.00
13	IMPROVED PELICAN	2043.75	29.50	85.00	85.25	199.75	0.11	1.78	45.63	1.00
14	FORREST	2034.37	28.00	79.00	107.75	134.50	0.33	1.17	34.45	1.00
16	ESSEX	2031.25	25.00	91.00	80.00	130.25	0.11	1.18	27.25	1.00
1	CALLAND	1971.87	23.00	79.00	93.75	143.75	0.14	1.17	32.78	1.00
3	BRAGG	1921.87	25.25	79.00	113.50	159.75	0.37	1.29	33.23	1.00
4	RANSOM	1828.12	24.75	88.00	130.50	170.75	0.33	1.50	27.43	1.00
10	CLARK 63	1628.12	22.50	79.00	114.00	132.25	0.38	0.79	33.25	1.00
15	COLUMBUS	1409.37	23.00	83.00	119.00	116.50	0.12	1.09	25.95	1.00
2	WOODWORTH	1403.12	23.75	79.00	105.25	152.00	0.21	1.31	33.50	1.00
8	BOSSIER	1359.37	23.00	90.00	87.00	192.75	0.04	1.57	21.18	1.00
7	JUPITER	1196.87	24.25	95.00	128.75	204.00	0.39	1.83	62.05	1.00
6	PICKETT 71	950.00	26.50	63.00	93.50	155.00	0.19	1.42	24.25	1.00
GRAND MEAN										
195.53		25.11	82.94	104.81	153.17	0.23	1.32	31.98	1.00	0.00
21.93%		2.04	6.25	14.87	15.48	0.09	0.14	1.02	0.00	0.00
556.96	*****=NS	16.28%	15.07%	28.37%	20.21%	79.44%	21.78%	6.36%	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS (* - PROB=.05 ** - PROB=.01)										
YIELD KG/HA	1.00	0.05	0.20	-0.17	-0.19	-0.05	-0.12	-0.10	0.00	0.00
DAYS TO FLOWER	0.05	1.00	-0.03	0.08	0.07	0.17	0.13	0.05	0.00	0.00
DAYS TO MATURITY	0.20	-0.03	1.00	0.02	-0.07	-0.02	-0.02	0.17	0.00	0.00
NODULE NUMBER 1	-0.17	0.08	0.02	1.00	-0.06	-0.18	-0.04	0.14	0.00	0.00
NODULE NUMBER 2	-0.19	0.07	-0.07	-0.06	1.00	-0.09	-0.09	0.32+	0.00	0.00
NODULE WEIGHT 1	-0.05	0.17	-0.02	-0.18	-0.09	1.00	-0.23	0.23	0.00	0.00
NODULE WEIGHT 2	-0.12	0.13	-0.02	-0.04	0.84++	-0.23	1.00	0.32+	0.00	0.00
PLANT HEIGHT	-0.10	0.05	0.17	-0.14	0.32++	0.23	0.32+	1.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.59++	0.04	0.26+	-0.14	-0.03	-0.20	-0.06	-0.13	0.00	0.00
PODS PER PLANT	-0.01	0.12	-0.13	-0.09	0.19	-0.12	0.24	-0.03	0.00	0.00
100 SEED WEIGHT	0.05	-0.17	0.13	0.00	0.13	-0.12	0.09	-0.03	0.00	0.00
QUALITY OF SEED	0.01	-0.05	0.06	-0.03	-0.08	0.31+	-0.33++	-0.12	0.00	0.00

TABLE 137 EXPERIMENT 173 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
12	DAVIS	1.00	300.50	15.18	18.91	1.00	38.2	22.2
5	HILL	1.00	274.75	18.58	13.62	1.00	35.3	23.3
9	WILLIAMS	1.00	251.25	12.20	17.33	1.00	36.0	25.2
11	COBB	1.00	279.00	17.85	16.38	1.75	35.9	23.1
13	IMPROVED PELICAN	1.00	229.25	21.63	13.08	1.00	37.5	23.8
14	FORREST	1.00	227.75	15.38	12.36	1.25	37.2	22.5
16	ESSEX	1.00	256.75	11.30	15.45	1.00	38.5	22.6
1	CALLAND	1.00	248.00	11.70	19.12	1.00	35.5	23.6
3	BRAGG	1.00	306.00	10.03	16.70	1.00	36.7	24.3
4	RANSOM	1.00	310.25	12.78	16.37	1.00	35.4	25.4
10	CLARK 63	1.00	240.25	12.65	15.22	1.25	35.6	24.2
15	COLUMBUS	1.00	175.75	15.75	16.55	1.00	37.1	23.8
2	WOODWORTH	1.00	219.25	14.95	14.92	1.00	35.1	25.0
8	BOSSIER	1.00	155.75	19.95	15.42	1.25	37.5	23.1
7	JUPITER	1.00	264.75	14.63	17.38	1.00	38.2	23.8
6	PICKETT 71	1.00	143.25	18.63	15.93	1.00	36.0	25.0
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05)								
YIELD	KG/HA	0.00	0.59++	-0.01	0.05	0.01		
DAYS TO FLOWER	0.00	0.04	0.12	-0.17	-0.05			
DAYS TO MATURITY	0.00	0.26+	-0.13	0.13	0.06			
NODULE NUMBER 1	0.00	0.14	-0.09	0.00	-0.03			
NODULE NUMBER 2	0.00	-0.03	0.19	0.13	-0.08			
NODULE WEIGHT 1	0.00	0.20	-0.12	-0.12	0.31+			
NODULE WEIGHT 2	0.00	-0.06	0.24	0.09	-0.33++			
PLANT HEIGHT	0.00	0.13	-0.03	-0.03	-0.12			
LODGING	0.00	0.00	0.00	0.00	0.00			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.34++	0.02	0.00			
PODS PER PLANT	0.00	-0.34++	1.00	-0.24	0.17			
100 SEED WEIGHT	0.00	0.02	-0.24	1.00	-0.12			
QUALITY OF SEED	0.00	0.00	0.17	-0.12	1.00			
(+ - PROB=.01)								

TABLE 138 EXPERIMENT 132 YEAR 1976

REGION - ASIA
 SITE - MAHA ILLUPPALLAMA
 LATITUDE - 8 DEG. 5 MIN. N
 COOPERATOR - P.W.S.M. WEERASINGHE
 DATE PLANTED - MAY 24, 1976
 SOIL TYPE - SANDY CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 20.0, P 60.0, K 40.0
 AMOUNT OF MOISTURE - 4 MM
 NUMBER OF IRRIGATIONS - 13
 LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA

ELEVATION - 138 M
 LONGITUDE - 80 DEG. 28 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAKS TO FLOWER	DAKS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	PLANT HEIGHT	LODGING
4	IMPROVED PELICAN	1800.36	32.75	99.00	66.75	136.50	0.33	1.24	60.08	1.00
3	HARDEE	1712.84	29.50	98.25	72.50	187.25	0.50	1.54	29.15	1.00
15	SJ-2	1571.15	32.00	91.75	84.75	169.25	0.70	1.34	52.38	1.00
12	BONUS	1544.06	35.00	92.75	67.25	182.75	0.53	1.76	36.13	1.00
1	JUPITER	1473.21	38.50	110.25	93.00	128.25	0.62	1.12	58.35	1.00
7	DAVIS	1458.62	28.00	95.25	73.00	173.25	0.48	1.52	28.60	1.00
6	BRAGG	1423.20	33.00	88.50	98.25	169.50	0.69	1.50	37.45	1.00
5	BOSSIER	1406.53	28.00	93.25	71.25	124.75	0.58	1.06	26.15	1.00
14	PB-1	1366.94	32.00	88.50	64.00	177.25	0.45	1.67	33.88	1.00
13	WILLIAMS	1289.84	28.00	81.00	36.25	146.75	0.24	1.28	36.33	1.00
9	FORREST	1214.83	29.00	84.00	51.75	117.50	0.29	0.97	28.00	1.00
11	CLARK 63	1179.40	30.00	84.25	46.50	152.00	0.40	1.35	46.68	1.00
8	TRACY	1114.81	28.00	80.00	81.50	146.50	0.58	1.39	26.73	1.00
10	HILL	1068.96	28.00	82.00	50.00	178.25	0.36	1.52	27.08	1.00
2	HAMPTON 266A	881.43	29.75	83.75	76.75	156.75	0.53	1.40	23.30	1.00
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LST VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
(* - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.26+	0.52++	0.20	-0.02	0.09	-0.05	0.47++	0.00
DAKS TO FLOWER		0.26+	1.00	0.58++	0.32+	0.01	0.29+	0.07	0.64++	0.00
DAKS TO MATURITY		0.52++	0.58++	1.00	0.20	-0.07	0.13	-0.11	0.50++	0.00
MODULE NUMBER 1		0.20	0.32+	0.20	1.00	0.02	0.89++	-0.02	0.08	0.00
MODULE NUMBER 2		-0.02	0.01	-0.07	0.02	1.00	-0.03	-0.03	-0.14	0.00
MODULE WEIGHT 1		0.09	0.29+	0.13	0.89++	-0.03	1.00	-0.07	0.01	0.00
MODULE WEIGHT 2		-0.05	0.07	-0.11	-0.02	0.90++	-0.07	1.00	-0.11	0.00
PLANT HEIGHT		0.47++	0.64++	0.50++	0.08	-0.14	0.01	-0.11	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.17	0.16	0.03	-0.04	-0.16	-0.00	-0.00	-0.18	0.46++
PLANT		0.17	-0.15	0.00	-0.09	0.28+	-0.16	0.20	-0.14	0.00
100 SEED		0.06	0.02	0.33+	0.09	-0.05	0.06	-0.09	0.12	0.00
QUALITY		0.07	-0.36++	0.17	0.05	-0.08	0.09	-0.10	-0.29+	0.00

TABLE 138 EXPERIMENT 132 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	IMPROVED PELICAN	1.00	199.00	27.00	14.20	1.00
3	HARDEE	1.00	116.25	28.25	17.40	1.00
15	SJ-2	1.00	179.25	28.75	12.85	1.00
12	BONUS	1.00	158.75	24.00	13.48	1.00
1	JUPITER	1.00	141.75	15.25	18.25	1.00
7	DAVIS	1.00	155.50	24.50	16.38	2.00
6	BRAGG	1.00	144.50	22.50	14.30	1.00
5	BOSSIER	1.00	146.50	25.50	14.88	2.00
14	PB-1	1.00	148.50	39.75	10.83	1.00
13	WILLIAMS	1.00	124.75	25.00	16.40	1.00
9	FORREST	1.00	139.00	23.75	11.83	1.00
11	CLARK 63	1.00	244.75	20.25	15.93	1.00
8	TRACY	1.00	142.50	17.00	15.60	1.00
10	HILL	1.00	108.50	31.25	14.55	1.00
2	HAMPTON 266A	1.00	89.75	32.00	14.55	1.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.17	0.17	0.06	0.07
DAYS TO FLOWER	0.00	0.16	-0.15	0.02	-0.36++	
DAYS TO MATURITY	0.00	0.03	0.00	0.33+	0.17	
NODULE NUMBER 1	0.00	-0.04	-0.09	0.09	0.05	
NODULE NUMBER 2	0.00	-0.16	0.28+	-0.05	-0.08	
NODULE WEIGHT 1	0.00	-0.00	-0.16	0.06	0.09	
NODULE WEIGHT 2	0.00	-0.18	0.20	-0.09	-0.10	
PLANT HEIGHT	0.00	0.46++	-0.14	0.12	-0.29+	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.31+	-0.08	0.02	
PODS PER PLANT	0.00	-0.31+	1.00	-0.38++	-0.03	
100 SEED WEIGHT	0.00	-0.08	-0.03	1.00	0.17	
QUALITY OF SEED	0.00	0.02	-0.03	0.17	1.00	

TABLE I 39 EXPERIMENT 135 YEAR 1976

REGION - ASIA
 SITE - OKAMPITIYA
 LATITUDE - 6 DEG. 45 MIN. N
 COOPERATOR - L.G. HERAT
 DATE PLANTED - MAY 11, 1976
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/HA) - N 22.4, P 29.3, K 37.3
 AMOUNT OF MOISTURE - 91 MM
 NUMBER OF IRRIGATIONS - 12
 LOCAL VARIETIES - PB-1, SJ-2
 COUNTRY - SRI LANKA
 ELEVATION - 184 M
 LONGITUDE - 81 DEG. 15 MIN. E
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
5	BOSSIER	3271.49	25.00	104.00	102.25	206.75	1.76	4.76	66.75	1.00		
3	HARDEE	3171.47	29.00	110.00	122.00	247.50	1.96	5.31	64.00	1.00		
14	PB-1	3125.62	25.00	89.00	95.00	166.25	1.78	4.13	68.25	2.00		
7	DAVIS	2929.75	25.00	102.00	70.50	197.50	1.80	4.87	50.50	1.00		
6	BRAGG	2429.65	29.00	96.00	62.25	116.25	1.22	3.42	48.00	1.00		
13	WILLIAMS	2229.61	22.00	80.00	97.50	92.50	1.51	2.89	37.50	1.00		
2	HAMPTON 266A	2175.43	22.00	94.25	95.25	128.00	1.70	3.46	37.50	1.00		
9	FORREST	2162.93	25.00	96.00	72.50	124.75	1.57	3.59	51.50	1.00		
10	HILL	2146.26	29.00	80.00	77.00	66.75	1.36	2.08	54.25	1.50		
12	BONUS	2133.76	22.00	82.25	68.00	87.50	1.38	2.69	47.00	1.00		
8	TRACY	2100.42	22.00	82.25	76.50	85.25	1.36	2.61	41.25	1.00		
4	IMPROVED PELICAN	2025.40	25.00	111.75	36.25	71.25	0.70	1.51	80.00	1.75		
1	JUPITER	1912.88	46.00	117.00	71.50	225.00	1.42	4.44	101.25	1.25		
11	UNKNOWN	1883.71	25.00	80.00	64.00	97.00	1.37	2.53	65.00	2.00		
15	SJ-2	1858.70	25.00	117.00	48.75	90.00	1.17	2.35	83.75	2.25		
	GRAND MEAN	2370.47	26.40	96.10	77.28	133.48	1.47	3.38	59.77	1.32		
	STANDARD ERROR OF A VARIETY MEAN	212.79	0.00	1.17	13.92	20.36	0.23	0.45	2.39	0.14		
	COEFFICIENT OF VARIATION	17.95%	0.00%	2.43%	36.02%	30.50%	31.89%	26.68%	8.00%	20.96%		
	5% LSD VARIETY MEANS (*****=NS)	607.32	0.00	3.34	39.73	58.10	*****	1.29	6.82	0.39		
	(* - PROB=.05 +* - PROB=.01)											
	CORRELATIONS											
	YIELD KG/HA	1.00	-0.09	0.06	0.43++	0.49++	0.48++	0.48++	0.48++	-0.02	-0.11	
	DAYS TO FLOWER	-0.09	1.00	0.49++	-0.03	0.42++	-0.02	-0.27+	-0.67++	-0.01	-0.01	
	DAYS TO MATURITY	0.06	-0.49++	1.00	-0.12	0.43++	-0.07	0.29+	0.69++	0.10	0.10	
	NODULE NUMBER 1	0.43++	-0.03	-0.12	1.00	0.40++	0.63++	0.37++	-0.17	-0.22	-0.22	
	NODULE NUMBER 2	0.49++	-0.42++	0.43++	-0.04	0.40++	1.00	0.29+	0.92++	0.28+	-0.21	
	NODULE WEIGHT 1	0.48++	-0.02	-0.07	0.63++	0.29+	0.00	0.29+	-0.11	-0.20	-0.30+	
	NODULE WEIGHT 2	0.48++	-0.27+	0.29+	0.37++	0.92++	0.29+	1.00	0.06	-0.06	-0.30+	
	PLANT HEIGHT	-0.02	0.67++	0.69++	-0.17	0.28++	-0.11	0.06	1.00	0.00	0.52++	
	LOGGING	-0.11	0.01	0.10	-0.22	-0.21	-0.20	-0.30+	0.52++	1.00		
	SHATTER	-0.26+	-0.12	-0.37++	-0.07	-0.32+	-0.08	-0.35++	0.11	0.59++		
	PLANTS HARVEST	0.39++	0.07	0.07	0.17	0.15	0.02	0.32+	0.32+	0.26+		
	PODS PER PLANT	0.23	-0.42++	-0.73++	0.01	0.43++	-0.03	0.61++	0.23	0.23		
	100 SEED WEIGHT	0.09	0.06	0.06	0.12	0.22	0.17	-0.27+	-0.37++	-0.62++		
	QUALITY OF SEED	-0.23	0.37++	0.25	-0.17	-0.13	-0.11	0.54++	0.40+	0.40+		

TABLE 139 EXPERIMENT 135 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVESTED	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5 BOSSIER	1.00	308.75	25.55	20.00	2.00	
3 HARDEE	1.00	320.00	20.88	19.15	3.00	
14 PB-1	1.75	332.50	19.95	12.98	3.00	
7 DAVIS	1.00	310.25	18.50	22.05	3.00	
6 BRAGG	1.00	292.00	18.88	22.15	2.00	
13 WILLIAMS	1.50	303.00	10.48	19.10	3.00	
2 HAMPTON 266A	1.00	244.75	18.98	22.98	2.00	
9 FORREST	1.25	310.50	15.20	16.75	2.00	
10 HILL	2.00	305.50	11.93	16.33	3.00	
12 BONUS	1.25	298.75	11.55	20.03	4.00	
8 TRACY	1.00	304.25	11.30	19.03	2.00	
4 IMPROVED PELICAN	1.00	314.25	22.68	16.50	3.00	
1 JUPITER	1.00	302.25	26.00	19.93	4.00	
11 UNKNOWN	3.00	305.00	13.43	16.53	3.00	
15 SJ-2	2.00	313.00	22.55	15.20	4.00	
GRAND MEAN	1.38	304.32	17.85	18.58	2.87	
STANDARD ERROR OF A VARIETY MEAN	0.13	10.58	1.98	0.37	0.00	
COEFFICIENT OF VARIATION	19.10%	6.95%	22.20%	3.94%	0.00%	
5% LSD VARIETY MEANS (******=NS)	0.38	30.19	5.66	1.04	0.00	
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA	-0.26+	0.39++	0.23	0.09	-0.23	
DAYS TO FLOWER	-0.12	0.07	0.42++	0.06	0.37++	
DAYS TO MATURITY	-0.37++	0.07	0.73++	0.06	0.25	
ODULE NUMBER 1	-0.07	0.17	0.01	0.12	-0.17	
ODULE NUMBER 2	-0.32+	0.15	0.43++	0.22	0.01	
ODULE WEIGHT 1	-0.08	0.02	-0.03	0.17	-0.13	
ODULE WEIGHT 2	-0.35++	0.07	0.28+	0.27+	-0.11	
PLANT HEIGHT	0.11	0.32+	0.61++	-0.37++	0.54++	
LODGING	0.59++	0.26+	0.23	-0.62++	0.40++	
SHATTER	1.00	0.11	-0.23	-0.52++	0.27+	
PLANTS HARVEST	0.11	1.00	-0.03	-0.43++	0.21	
PODS PER PLANT	-0.23	-0.03	1.00	0.07	0.09	
100 SEED WEIGHT	-0.52++	-0.43++	0.07	1.00	-0.28+	
QUALITY OF SEED	0.27+	0.21	0.09	-0.28+	1.00	

TABLE 140 EXPERIMENT 134 YEAR 1976

REGION - ASIA
 SITE - PUTTALAM
 LATITUDE - 8 DEG. 15 MIN. N
 COOPERATORS - I.S. PADMASIRI, S. THIRIANATHAN
 DATE PLANTED - APRIL 30, 1976
 SOIL TYPE - SAND 60%, SILT 20%, CLAY 20%
 FERTILIZER USED (KG/HA) - P 60.0, K 40.0
 AMOUNT OF MOISTURE - 390 MM
 NUMBER OF IRRIGATIONS - 18 (360 MM)
 LOCAL VARIETIES - PB-1, SJ-2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS	
											(+ - PROB=.05	(+ - PROB=.01)
14	PB-1	2954.76	29.00	93.00	57.50	64.00	0.00	0.00	45.78	1.00	-0.26+	-0.31+
9	FORREST	2763.05	26.00	95.00	39.75	56.25	0.00	0.00	24.78	1.00	-0.49++	-0.11
10	HILL	2287.96	26.00	94.75	38.00	72.50	0.00	0.00	41.48	1.00	-0.12	-0.13
15	SJ-2	2283.79	33.00	132.25	30.75	42.75	0.00	0.00	43.45	1.50	-0.09	-0.15
11	CLARK 63	2162.93	29.00	92.00	52.00	69.25	0.00	0.00	38.85	1.50	-0.00	-0.00
5	BRAGG	2150.43	26.00	121.75	75.50	93.25	0.00	0.00	29.65	1.50	-0.00	-0.00
1	JUPITER	2021.24	35.00	123.00	28.50	48.25	0.00	0.00	44.85	1.00	-0.00	-0.00
4	IMPROVED PELICAN	1946.22	29.00	118.25	34.50	49.75	0.00	0.00	60.78	1.25	-0.00	-0.00
3	HARDEE	1879.54	29.00	114.00	45.00	84.50	0.00	0.00	27.63	2.50	-0.00	-0.00
13	WILLIAMS	1877.46	23.00	92.00	53.00	75.00	0.00	0.00	33.58	1.50	-0.00	-0.00
7	DAVIS	1829.53	29.00	124.75	45.00	66.75	0.00	0.00	19.95	1.50	-0.00	-0.00
6	BOSSIER	1792.02	26.00	93.00	24.75	44.00	0.00	0.00	29.25	1.50	-0.00	-0.00
8	TRACY	1783.69	23.00	93.00	50.00	57.75	0.00	0.00	22.83	1.00	-0.00	-0.00
12	BONUS	1687.84	23.00	92.00	39.75	51.25	0.00	0.00	26.93	1.00	-0.00	-0.00
2	HAMPTON 266A	1625.32	26.00	122.50	39.00	65.50	0.00	0.00	25.88	1.00	-0.00	-0.00
STANDARD ERROR OF A VARIETY MEAN		2069.72	27.47	106.75	43.53	62.72	0.00	0.00	34.37	1.32	-0.17	-0.25
5% LST VARIETY MEANS (*****=NS)		240.15	0.00	2.34	10.25	14.03	0.00	0.00	2.14	0.25	-0.09	-0.26
		23.21%	0.00%	4.38%	47.07%	44.74%	0.00%	0.00%	12.46%	37.49%	0.70	0.11
		685.39	0.00	6.67	*****	*****	0.00	0.00	6.11	0.70	0.00	0.00

TABLE 140 EXPERIMENT 134 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	PB-1	1.00	332.00	24.30	12.24	1.00
9	FORREST	1.00	317.25	19.05	14.46	4.00
10	HILL	1.00	314.00	44.23	13.39	1.50
15	SJ-2	1.50	298.00	27.37	13.61	1.00
11	CLARK 63	1.00	320.00	18.68	17.69	1.00
5	BRAGG	1.25	300.75	22.15	17.42	1.00
1	JUPITER	1.00	296.50	27.92	18.28	2.75
4	IMPROVED PELICAN	1.00	302.75	32.28	14.57	2.25
3	HARDEE	1.00	292.75	33.67	14.47	2.25
13	WILLIAMS	1.25	299.25	18.85	16.32	2.00
7	DAVIS	1.25	296.25	24.37	19.31	2.00
6	BOSSIER	1.00	312.25	19.85	14.82	2.00
8	TRACY	1.00	296.75	18.33	18.14	2.75
12	BONUS	1.00	289.25	20.38	16.25	2.25
2	HAMPTON 266A	1.50	278.75	23.50	23.19	3.00
STANDARD ERROR OF A VARIETY MEAN		1.15	303.10	24.99	16.28	2.05
COEFFICIENT OF VARIATION		0.17	10.28	2.94	0.51	0.23
5% LSD VARIETY MEANS (*****=NS)		30.20%	6.78%	23.54%	6.26%	22.20%
		*****	*****	8.40	1.45	0.65
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	-0.15	0.51++	0.05	-0.35++	-0.14
DAYS TO FLOWER	0.09	0.05	0.28+	-0.11	-0.19	
DAYS TO MATURITY	0.43++	-0.28+	0.22	0.29+	-0.08	
NODEL NUMBER 1	-0.05	-0.19	0.04	0.04	-0.20	
NODEL NUMBER 2	-0.03	-0.30+	0.16	0.07	-0.12	
NODEL WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODEL WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.07	0.23	0.41++	-0.33++	-0.33++	
LODGING	0.17	-0.26+	0.05	-0.14	-0.18	
SHATTER	1.00	-0.22	0.02	0.10	-0.07	
PLANTS HARVEST	-0.22	1.00	0.02	-0.32+	-0.06	
PODS PER PLANT	0.02	0.02	1.00	-0.24	-0.14	
100 SEED WEIGHT	0.10	-0.32+	-0.24	1.00	0.27+	
QUALITY OF SEED	-0.07	-0.06	-0.14	0.27+	1.00	

TABLE 141

EXPERIMENT 666 YEAR 1976

REGION - ASIA

SITE - THIRUNELVELY

LATITUDE - 10 DEG. N

COOPERATORS - J.S. SELVARATNAM, S.

DATE PLANTED - MAY 21, 1976

SOIL TYPE - SANDY LOAM, PH 7.0

FERTILIZER USED (KG/HA) - N 22.0, P 66.0, K 44.0

AMOUNT OF MOISTURE - 14 MM

NUMBER OF IRRIGATIONS - 21

LOCAL VARIETIES - PB-1, SJ-2

COUNTRY - SRI LANKA
 ELEVATION - 1 M
 LONGITUDE - 80 DEG. E
 COOPERATOR - R. MANOKARAN
 DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB=.01)
3	HARDEE	4856.80	35.25	111.25	19.50	65.50	0.15	0.63	60.68	2.00	-0.20
2	HAMPTON 266A	4673.43	27.25	112.75	23.75	44.50	0.17	0.57	73.62	2.25	-0.37++
10	HILL	4647.60	27.25	110.00	13.50	48.00	0.12	0.62	69.12	2.00	-0.50++
6	BOSSIER	4625.92	34.75	98.75	3.75	30.00	0.02	0.35	42.98	1.25	-0.15
9	FORREST	4438.39	26.75	85.50	4.00	15.75	0.03	0.13	44.00	1.00	-0.08
13	WILLIAMS	4071.65	27.25	84.50	17.25	59.00	0.15	0.69	74.05	1.00	-0.05
11	CLARK 63	4021.64	26.75	84.25	12.25	118.75	0.15	0.83	67.68	1.00	-0.02
7	DAVIS	3763.25	26.75	99.25	18.00	60.00	0.14	0.63	49.88	1.00	-0.01
8	TRACY	3667.40	26.75	90.50	6.00	30.00	0.05	0.30	50.30	1.00	-0.00
5	BRAGG	3330.67	38.00	109.50	37.50	116.25	0.18	0.94	72.35	1.75	-0.00
14	PB-1	3296.49	35.00	97.00	25.00	208.75	0.19	1.64	74.05	2.00	-0.00
12	BONUS	3238.15	26.75	90.50	19.00	91.25	0.20	0.54	74.60	1.00	-0.00
4	IMPROVED PELICAN	2683.87	37.25	96.25	18.25	27.25	0.06	0.33	104.88	3.00	-0.00
15	SJ-2	2513.00	35.00	97.50	2.50	26.00	0.01	0.24	79.73	2.25	-0.00
1	JUPITER	2456.74	43.75	124.25	22.00	24.00	0.29	0.34	74.90	1.75	-0.00
STANDARD ERROR OF A VARIETY MEAN		3752.33	31.63	99.45	16.15	64.33	0.13	0.58	67.52	1.62	-0.20
COEFFICIENT OF VARIATION		309.92	0.52	2.69	6.40	37.21	0.05	0.25	2.30	0.13	-0.37++
5% 1ST VARIETY MEANS (**=NS)		16.52%	3.28%	5.40%	79.23%	115.68%	76.00%	86.95%	6.82%	16.25%	0.37
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)											
YIELD	KG/HA	1.00	-0.47++	-0.01	0.02	-0.02	-0.03	0.05	-0.48++	-0.20	-0.20
DAYS TO Maturity	FLOWER	-0.47++	1.00	0.51++	0.12	0.01	0.11	0.01	0.37++	0.50++	0.50++
NODULE NUMBER 1		-0.01	0.51++	1.00	-0.26+	-0.07	-0.28+	0.03	0.15	0.43++	0.15
NODULE NUMBER 2		0.02	0.12	0.26+	1.00	-0.48++	0.81++	0.62++	0.15	0.08	0.03
NODULE WEIGHT 1		-0.02	0.01	-0.07	0.48++	1.00	-0.39++	0.88++	0.11	-0.01	-0.01
NODULE WEIGHT 2		0.03	0.11	0.28+	0.81++	0.39++	1.00	0.57++	0.06	0.04	0.04
PLANT HEIGHT		0.05	0.01	0.03	0.62++	0.88++	0.57++	1.00	0.06	0.63++	0.00
LOGGING		-0.48++	0.37++	0.15	0.15	0.08	0.11	0.06	0.63++	0.50++	0.50++
SHATTER		-0.20	0.50++	0.43++	0.15	0.03	-0.01	0.04	0.63++	1.00	0.15
PLANTS HARVEST		0.02	-0.17	-0.24	0.02	0.33+	0.08	-0.22	-0.01	-0.17	-0.17
PODS PER PLANT		0.16	-0.73++	-0.57++	-0.13	-0.00	-0.07	-0.07	-0.20	-0.51++	-0.51++
100 SEED WEIGHT		0.14	0.30+	0.06	0.15	0.29+	0.16	0.25	0.08	0.28+	0.28+
QUALITY OF SEED		-0.06	0.32+	0.40++	0.08	-0.17	0.18	-0.17	0.03	-0.62++	0.05

TABLE 141 EXPERIMENT 666 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3 HARDEE		1.00	228.25	4.1.25	17.56	2.75
2 HAMPTON 266A		1.00	264.75	37.00	17.93	2.75
10 HILL		1.00	249.50	28.25	17.59	2.50
6 BOSSIER		1.00	248.75	42.00	18.46	2.50
9 FORREST		1.00	293.00	44.00	16.18	2.50
13 WILLIAMS		1.00	292.50	30.00	19.90	2.00
11 CLARK 63		1.50	289.00	48.50	18.48	2.25
7 DAVIS		1.00	290.25	29.75	20.04	2.00
8 TRACY		1.00	299.75	30.75	21.04	2.25
5 BRAGG		1.00	233.75	27.00	15.65	3.00
14 PB-1		1.00	248.00	60.75	14.30	2.00
12 BONUS		1.00	297.00	26.50	19.61	3.00
4 IMPROVED PELICAN		1.00	258.25	43.25	15.57	2.25
15 SJ-2		1.00	253.50	45.50	13.88	2.25
1 JUPITER		1.00	237.50	48.50	18.09	3.25
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.02	0.16	-0.14	0.28+	-0.06
DAYS TO FLOWER		-0.17	-0.73++	0.30+	-0.50++	0.32++
DAYS TO MATURITY		-0.24	-0.57++	0.06	-0.15	0.40++
NODULE NUMBER 1		0.02	-0.13	0.15	0.05	0.08
NODULE NUMBER 2		0.33+	-0.00	0.29+	-0.12	-0.17
NODULE WEIGHT 1		0.08	-0.06	0.16	0.20	0.18
NODULE WEIGHT 2		0.22	-0.07	0.25	-0.06	-0.17
PLANT HEIGHT		-0.01	-0.20	0.08	-0.42++	0.03
LODGING		-0.17	-0.51++	0.28+	-0.62++	0.05
SHATTER		1.00	0.16	0.05	0.08	-0.17
PLANTS HARVEST		0.16	1.00	-0.16	0.49++	-0.31+
PODS PER PLANT		0.05	-0.16	1.00	-0.38++	-0.17
100 SEED WEIGHT		0.08	0.49++	-0.38++	1.00	-0.01
QUALITY OF SEED		-0.17	-0.31+	-0.17	-0.01	1.00

TABLE 142 EXPERIMENT 33 YEAR 1976

REGION - ASIA
 SITE - KHON KAEN
 LATITUDE - 16 DEG. 36 MIN. N
 COOPERATOR - PAESAN LAOSUWAN
 DATE PLANTED - JUNE 26, 1976
 SOIL TYPE - SAND, PH 6.5
 FERTILIZER USED (KG/HA) - N 18.75, P 32.25, K 62.25
 AMOUNT OF MOISTURE - 693 MM
 LOCAL VARIETY - S.J.2

COUNTRY - THAILAND
 ELEVATION - 180 M

DATE HARVESTED - NOVEMBER, 1976

AVERAGE - 693 MM

LOCAL VARIETY - S.J.2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
13	DAVIS	2651.78	32.50	118.00	255.50	694.25	0.88	6.71	43.75	1.00
12	COBB	2560.51	31.00	133.00	183.75	474.50	0.67	5.05	45.00	1.00
6	PICKETT 71	2417.57	30.50	124.75	98.75	295.75	0.43	4.07	30.75	1.00
8	JUPITER	2246.70	49.25	127.00	240.75	499.25	1.59	5.24	73.75	1.00
3	BRAGG	2227.53	29.50	121.00	221.25	847.50	0.83	6.75	44.75	1.00
14	IMPROVED PELICAN	1802.86	41.50	123.00	232.00	443.50	1.86	3.80	82.75	1.00
9	BOSSIER	1650.75	28.50	129.00	134.00	451.00	0.99	4.99	34.25	1.00
15	FORREST	1624.07	30.00	132.50	178.25	561.75	0.49	4.15	41.00	1.00
16	S.J.2	1589.48	43.00	122.75	170.50	396.50	1.28	4.27	63.25	1.50
1	CALLAND	1528.22	26.00	123.00	31.00	509.00	0.11	4.28	65.25	1.00
4	RANSOM	1457.79	28.75	128.50	139.75	710.00	0.48	4.75	36.75	1.00
5	HILL	983.53	32.50	133.50	94.75	335.25	0.31	3.11	33.25	1.00
10	WILLIAMS	831.42	24.25	126.00	158.25	556.25	0.34	5.48	58.25	1.00
11	CLARK 63	643.88	25.75	127.00	83.00	517.25	0.18	5.29	59.25	1.00
7	CUTLER 71	404.25	24.25	126.00	78.75	513.75	0.18	4.77	63.75	1.00
2	WOODWORTH	133.36	24.00	123.00	81.00	482.25	0.17	4.90	55.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSE VARIETY MEANS (*****NS)										
CORRELATIONS										
YIELD KG/HA										
DAYS TO FLOWER										
DAYS TO MATURITY										
MODULE NUMBER 1										
MODULE NUMBER 2										
MODULE WEIGHT 1										
MODULE WEIGHT 2										
PLANT HEIGHT										
LOGGING										
SHATTER										
PLANTS HARVEST										
PODS PER PLANT										
100 SEED WEIGHT										
QUALITY OF SEED										

TABLE 142 EXPERIMENT 33 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	130-25	0.00	0.00	5.00
12	COBB	1.00	132-75	0.00	0.00	5.00
6	PICKETT 71	1.00	141-50	0.00	0.00	5.00
8	JUPITER	1.00	110-50	0.00	0.00	2.50
3	BRAGG	1.00	144-75	0.00	0.00	5.00
14	IMPROVED PELICAN	1.00	119-00	0.00	0.00	3.50
9	BOSSIER	1.00	114-50	0.00	0.00	5.00
15	FORREST	1.00	141-75	0.00	0.00	5.00
16	S.J. 2	1.00	56-75	0.00	0.00	3.00
1	CALLAND	1.00	115-75	0.00	0.00	5.00
4	RANSOM	1.00	134-50	0.00	0.00	5.00
5	HILL	1.00	95-00	0.00	0.00	5.00
10	WILLIAMS	1.00	137-25	0.00	0.00	5.00
11	CLARK 63	1.00	140-75	0.00	0.00	5.00
7	CUTLER 71	1.00	146-50	0.00	0.00	5.00
2	WOODWORTH	1.00	141-50	0.00	0.00	5.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	0.01	0.00	0.00	-0.17
DAYS TO FLOWER	0.00	-0.48++	0.00	0.00	0.00	-0.75++
DAYS TO MATURITY	0.00	0.03	0.00	0.00	0.00	0.22
NODULE NUMBER 1	0.00	0.04	0.00	0.00	0.00	-0.07
NODULE NUMBER 2	0.00	0.32++	0.00	0.00	0.00	0.21
NODULE WEIGHT 1	0.00	-0.12	0.00	0.00	0.00	-0.26+
NODULE WEIGHT 2	0.00	0.21	0.00	0.00	0.00	0.12
PLANT HEIGHT	0.00	-0.07	0.00	0.00	0.00	-0.35++
LODGING	0.00	-0.35++	0.00	0.00	0.00	-0.37++
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00	0.34++
PODS PER PLANT	0.00	0.00	1.00	0.00	0.00	0.00
100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00	0.00
QUALITY OF SEED	0.00	0.34++	0.00	0.00	1.00	

TABLE 143 EXPERIMENT 30 YEAR 1976

REGION - ASIA
 SITE - SARABURI
 LATITUDE - 14 DEG. 47 MIN. N
 COOPERATOR - PRAPUTTABAT AGRICULTURAL EXPERIMENT STATION
 DATE PLANTED - AUGUST 4, 1976 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - SAND 40.3%, SILT 26.6%, CLAY 33.1%
 AMOUNT OF MOISTURE - 832 MM
 NUMBER OF IRRIGATIONS - 1
 LOCAL VARIETY - SJ-4

COUNTRY - THAILAND									
ELEVATION - 100 M LONGITUDE - 100 DEG. 57 MIN. E									
STATION									
DATE PLANTED - AUGUST 4, 1976 DATE HARVESTED - OCTOBER, 1976									
SOIL TYPE - SAND 40.3%, SILT 26.6%, CLAY 33.1%									
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT LODGING
12	COBB	2084.17	24.00	82.25	0.00	0.00	0.00	0.00	61.08 1.25
4	RANSOM	1937.05	24.25	77.75	0.00	0.00	0.00	0.00	48.38 1.00
10	WILLIAMS	1924.55	22.00	71.50	0.00	0.00	0.00	0.00	69.25 1.25
3	BRAGG	1924.13	24.00	80.00	0.00	0.00	0.00	0.00	52.28 1.75
13	DAVIS	1872.04	25.75	80.00	0.00	0.00	0.00	0.00	45.45 1.25
15	FORREST	1867.87	24.00	78.00	0.00	0.00	0.00	0.00	51.88 1.50
6	PICKETT 71	1855.37	24.00	80.25	0.00	0.00	0.00	0.00	42.93 1.00
9	BOSSIER	1838.28	24.00	78.00	0.00	0.00	0.00	0.00	50.00 1.75
2	WOODWORTH	1791.19	22.00	68.00	0.00	0.00	0.00	0.00	65.15 3.00
11	CLARK 63	1682.84	22.00	72.00	0.00	0.00	0.00	0.00	78.12 3.25
7	CUTLER 71	1668.25	22.00	71.00	0.00	0.00	0.00	0.00	76.75 3.25
1	CALLAND	1644.50	22.00	72.50	0.00	0.00	0.00	0.00	79.50 2.75
16	SJ-4	1585.73	32.00	88.00	0.00	0.00	0.00	0.00	85.10 3.50
14	IMPROVED PELICAN	1517.80	32.00	85.75	0.00	0.00	0.00	0.00	98.90 3.50
5	HILL	1476.96	24.25	70.00	0.00	0.00	0.00	0.00	49.65 2.75
8	JUPITER	1182.74	42.50	96.00	0.00	0.00	0.00	0.00	92.82 3.00
GRAND MEAN									
92.15									
STANDARD ERROR OF A VARIETY MEAN									
1.87									
COEFFICIENT OF VARIATION									
10.59%									
5% LSD VARIETY MEANS (*****NS)									
262.48									
5.34									
2.74									
CORRELATIONS									
(+ - PROB=.05 ++ - PROB=.01)									
YIELD KG/HA	-0.61++	-0.28+	0.00	0.00	0.00	0.00	0.00	0.00	-0.50++
DAYS TO FLOWER	-0.61++	1.00	0.73++	0.00	0.00	0.00	0.00	0.00	0.46++
DAYS TO MATURITY	-0.28+	0.73++	1.00	0.00	0.00	0.00	0.00	0.00	0.33++
NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT	-0.50++	0.46++	0.33++	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	-0.55++	0.33++	0.07	0.00	0.00	0.00	0.00	0.00	0.65++
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
PLANTS HARVEST	0.28+	-0.63++	-0.64++	0.00	0.00	0.00	0.00	0.00	-0.39++
PODS PER PLANT	-0.36++	0.64++	0.79++	0.00	0.00	0.00	0.00	0.00	-0.12
100 SEED WEIGHT	0.27+	-0.38++	-0.29+	0.00	0.00	0.00	0.00	-0.03	-0.16
QUALITY OF SEED	0.07	-0.28+	-0.24	0.00	0.00	0.00	0.00	-0.36++	-0.13

TABLE 143 EXPERIMENT 30 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
12	COBB	1.00	226.00	35.03	14.48	3.25
4	RANSOM	1.00	238.00	21.30	15.03	3.00
1C	WILLIAMS	1.00	217.75	24.63	16.38	3.00
3	BRAGG	1.00	219.25	29.45	14.88	4.25
13	DAVIS	1.00	249.25	32.73	13.93	3.00
15	FORREST	1.00	245.50	31.58	11.63	4.00
6	PICKETT 71	1.00	208.50	25.20	14.53	3.75
9	BOSSIER	1.00	210.75	27.58	14.58	3.50
2	WOODWORTH	1.00	236.50	20.08	13.88	4.00
11	CLARK 63	1.00	234.00	20.53	15.20	3.25
7	CUTLER 71	1.00	226.50	23.35	17.40	3.00
1	CALLAND	1.00	252.75	23.78	15.33	3.75
16	SJ-4	1.00	210.50	54.95	12.70	3.00
14	IMPROVED PELICAN	1.00	199.00	56.55	11.30	3.00
5	HILL	1.00	281.25	27.63	12.45	3.50
8	JUPITER	1.00	153.50	58.35	14.48	3.00
	GRAND MEAN	1.00	226.81	32.04	14.26	3.39
	STANDARD ERROR OF A VARIETY MEAN	0.00	10.95	3.80	0.36	0.17
	COEFFICIENT OF VARIATION	0.00%	9.66%	23.73%	5.11%	9.78%
	5% LSD VARIETY MEANS (**NS=NS)	0.00	31.20	10.83	1.04	0.47
	CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)					
	YIELD KG/HA	0.00	0.28+	-0.36++	0.27*	0.07
	DAYS TO FLOWER	0.00	-0.63++	0.64++	-0.38++	-0.28+
	DAYS TO MATURITY	0.00	-0.64++	0.79++	-0.29+	-0.24
	ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	-0.39++	0.50++	-0.03	-0.36++
	LODGING	0.00	-0.12	0.31+	-0.16	-0.13
	SHATTER	1.00	0.00	0.00	C.00	0.00
	HARVEST	0.00	1.00	-0.55++	-0.02	-0.12
	PLANTS PER PLANT	0.00	-0.55++	1.00	-0.39++	-0.26+
	100 SEED WEIGHT	0.00	-0.02	-0.39++	1.00	-0.14
	QUALITY OF SEED	0.00	0.12	-0.26+	-0.14	1.00

TABLE 144 EXPERIMENT 32 YEAR 1976

REGION - ASIA
 SITE - SUKOTHAI
 LATITUDE - 17 DEG. 12 MIN. N
 COOPERATOR - ARWOTH NA LAMPANG
 DATE PLANTED - MAY 21, 1976
 SOIL TYPE - CLAY LOAM, PH 6.4
 FERTILIZER USED (KG/HA) - N 18.75, P 56.25, K 37.50
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETIES - SJ-1, SJ-4
 COUNTRY - THAILAND
 ELEVATION - 56 M
 LONGITUDE - 99 DEG. 40 MIN. E
 DATE HARVESTED - AUGUST, 1976

COUNTRY - THAILAND
ELEVATION - 56 M
LONGITUDE - 99 DEG. 40 MIN. E
DATE HARVESTED - AUGUST, 1976
6.25, K 37.50

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	FORREST	3326.50	31.00	96.00	0.00	0.00	0.00	0.00	0.00	1.00
16	SJ-4	3202.31	41.25	109.00	0.00	0.00	0.00	0.00	0.00	2.50
9	BOSSIER	2793.48	30.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
13	DAVIS	2756.38	32.75	106.50	0.00	0.00	0.00	0.00	0.00	1.00
4	RANSOM	2632.61	31.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
7	SJ-1	2572.60	41.25	109.00	0.00	0.00	0.00	0.00	0.00	4.25
11	CLARK 63	2428.82	27.00	91.50	0.00	0.00	0.00	0.00	0.00	1.00
8	JUPITER	2295.46	50.00	134.00	0.00	0.00	0.00	0.00	0.00	2.50
10	WILLIAMS	2211.69	27.00	90.00	0.00	0.00	0.00	0.00	0.00	1.00
14	IMPROVED PELICAN	2188.35	41.00	123.50	0.00	0.00	0.00	0.00	0.00	3.25
6	PICKETT 71	2078.33	31.25	109.00	0.00	0.00	0.00	0.00	0.00	1.00
1	CALLAND	2070.00	27.25	96.00	0.00	0.00	0.00	0.00	0.00	1.00
2	WOODWORTH	2057.91	26.00	81.00	0.00	0.00	0.00	0.00	0.00	1.00
3	BRAGG	2006.65	32.50	109.25	0.00	0.00	0.00	0.00	0.00	1.00
5	HILL	2001.23	32.25	94.50	0.00	0.00	0.00	0.00	0.00	1.00
12	COBB	1971.64	32.50	117.25	0.00	0.00	0.00	0.00	0.00	1.00
GRAND MEAN		2412.12	33.41	105.28	0.00	0.00	0.00	0.00	0.00	1.52
STANDARD ERROR OF A VARIETY MEAN		437.67	0.53	1.13	0.00	0.00	0.00	0.00	0.00	0.25
COEFFICIENT OF VARIATION		36.29%	3.18%	2.14%	0.00%	0.00%	0.00%	0.00%	0.00	32.55%
5% 1ST VARIETY MEANS (*****=NS)		*****	1.52	3.21	0.00	0.00	0.00	0.00	0.00	0.70
C O R R E L A T I O N S										
									* - PROB=.05	* - PROB=.01)
YIELD	KG/HA	1.00	0.09	-0.01	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO FLOWER		0.09	1.00	0.80++	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.01	0.80++	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
LODGING		0.02	0.71++	0.46++	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.04	0.11	0.19	0.00	0.00	0.00	0.00	0.00	0.13
PLANTS HARVEST		0.09	-0.34++	-0.36++	0.00	0.00	0.00	0.00	0.00	-0.12
PODS PER PLANT		0.48++	0.67++	0.44++	0.00	0.00	0.00	0.00	0.00	0.52++
100 SEED WEIGHT		0.19	-0.36++	-0.17	0.00	0.00	0.00	0.00	0.00	-0.36++
QUALITY OF SEED		0.09	0.12	-0.03	0.03	0.00	0.00	0.00	0.00	0.28+

TABLE 144

EXPERIMENT 32

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	FORREST	1.25	177.00	48.50	14.25 2.00
16	SJ-4	1.00	245.00	64.50	15.25 2.50
9	BOSSIER	1.00	200.75	42.25	14.25 2.25
13	DAVIS	2.25	214.25	31.00	16.50 2.00
4	RANSOM	1.25	193.75	31.00	16.25 2.00
7	SJ-1	1.75	213.00	58.00	13.50 2.75
11	CLARK 63	1.00	191.50	32.50	13.75 2.25
8	JUPITER	1.00	121.25	60.25	12.25 2.00
10	WILLIAMS	1.00	188.25	37.50	15.25 2.00
14	IMPROVED PELICAN	1.50	155.50	74.00	13.25 2.00
6	PICKETT 71	1.75	223.25	28.25	15.25 2.25
1	CALLAND	1.00	208.50	31.00	16.50 2.00
2	WOODWORTH	1.00	204.25	25.75	13.00 2.25
3	BRAGG	1.25	182.75	33.75	15.25 2.25
5	HILL	1.00	193.50	35.75	14.00 2.00
12	COBB	1.25	181.50	32.00	13.75 2.00
GRAND MEAN		1.27	193.38	41.63	14.52 2.16
STANDARD ERROR OF A VARIETY MEAN		0.19	11.76	6.23	0.52 0.17
COEFFICIENT OF VARIATION		29.34%	12.16%	29.94%	7.21% 15.36%
5% LSD VARIETY MEANS (*****=NS)		0.53	33.50	17.75	1.49 *****
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)					
YIELD KG/HA					
PLANTS FLOWER	0.04	0.09	0.48++	0.19	0.09
DAYS TO MATURITY	0.11	-0.34++	0.67++	-0.36++	0.12
NODULE NUMBER 1	0.19	-0.36++	0.44++	-0.17	-0.03
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00
LODGING	0.13	-0.12	0.52++	-0.36++	0.28+
SHATTER	1.00	0.08	0.02	0.16	-0.06
PLANTS HARVEST	0.08	1.00	-0.25+	0.39++	0.28+
PODS PER PLANT	0.02	-0.25+	1.00	-0.25+	0.11
100 SEED WEIGHT	0.16	0.39++	-0.25+	1.00	-0.03
QUALITY OF SEED	-0.06	0.28+	0.11	-0.03	1.00

TABLE 145 EXPERIMENT 444 YEAR 1976

REGION - ASIA
 SITE - SUKOTHAI
 LATITUDE - 17 DEG. 12 MIN. N
 COOPERATOR - ARWOOTH NA LAMPANG
 DATE PLANTED - MAY 28, 1976
 SOIL TYPE - CLAY LOAM PH 6.4
 FERTILIZER USED (KG/HA) - N 18
 AMOUNT OF MOISTURE - 799 MM
 NUMBER OF IRRIGATIONS - 4
 LOCAL VARIETY - SJ-4

COUNTRY - THAILAND
ELEVATION - 56 M
LONGITUDE - 99 DEG. 40 MIN. E
DATE HARVESTED - AUGUST, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
1	CALLAND	2860.99	27.50	95.75	0.00	0.00	0.00	0.00	64.25	1.25
7	COLUMBUS	2691.79	27.50	94.50	0.00	0.00	0.00	0.00	63.25	1.25
3	FORREST	2632.19	31.00	100.75	0.00	0.00	0.00	0.00	43.00	1.25
9	MULTIVAR 80	2543.43	26.75	89.75	0.00	0.00	0.00	0.00	62.50	2.00
12	CLARK 63	2245.03	38.25	97.00	0.00	0.00	0.00	0.00	63.00	2.75
2	WILLIAMS	2208.36	27.25	89.75	0.00	0.00	0.00	0.00	56.00	1.50
5	AMSOY 71	2124.59	26.00	91.00	0.00	0.00	0.00	0.00	58.50	1.50
13	TK-5	2094.59	38.00	98.25	0.00	0.00	0.00	0.00	73.00	3.50
8	LINCOLN	2037.91	27.75	95.75	0.00	0.00	0.00	0.00	62.50	2.25
15	SJ-4	1874.54	40.25	112.00	0.00	0.00	0.00	0.00	89.25	2.00
11	TAINUNG 4	1768.69	39.75	104.50	0.00	0.00	0.00	0.00	58.00	2.75
4	BEEFON	1618.24	26.25	93.00	0.00	0.00	0.00	0.00	45.25	1.50
14	ORBA	1517.39	42.75	117.00	0.00	0.00	0.00	0.00	64.50	5.00
6	ALTONA	1466.54	26.75	84.00	0.00	0.00	0.00	0.00	34.50	1.50
10	KAHSIUNG E-32	1169.40	39.75	90.50	0.00	0.00	0.00	0.00	118.00	5.00
GRAND MEAN										
		2056.91	32.37	96.90	0.00	0.00	0.00	0.00	63.70	2.37
STANDARD ERROR OF A VARIETY MEAN										
		435.30	0.36	1.37	0.00	0.00	0.00	0.00	8.10	0.41
COEFFICIENT OF VARIATION										
		42.33%	2.24%	2.83%	0.00%	0.00%	0.00%	0.00%	25.44%	34.48%
5% LSD VARIETY MEANS (**=NS)										
		*****	1.04	3.91	0.00	0.00	0.00	0.00	23.12	1.16
CORRELATIONS										
		(+ - PROB=.05			(+ - PROB=.01)					
YIELD KG/HA										
		1.00	-0.22	-0.12	0.00	0.00	0.00	0.00	0.00	0.37**
DAYS TO FLOWER										
		-0.22	1.00	0.70++	0.00	0.00	0.00	0.00	0.40++	0.62++
DAYS TO MATURITY										
		-0.12	0.70++	1.00	0.00	0.00	0.00	0.00	0.09	0.28+
MODULE NUMBER 1										
		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2										
		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1										
		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
MODULE WEIGHT 2										
		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT										
		0.37++	0.40++	0.09	0.00	0.00	0.00	0.00	1.00	0.64++
LODGING										
		0.17	0.62++	0.28+	0.00	0.00	0.00	0.00	0.64++	1.00
SHATTER										
		-0.09	0.20	0.06	0.00	0.00	0.00	0.00	-0.13	0.04
PLANTS HARVEST										
		0.19	0.14	0.15	0.00	0.00	0.00	0.00	0.23	0.29+
PODS PER PLANT										
		0.25	0.42++	0.00	0.00	0.00	0.00	0.00	0.65++	0.46++
100 SEED WEIGHT										
		0.44++	-0.54++	-0.32+	0.00	0.00	0.00	0.00	-0.18	-0.41++
QUALITY OF SEED										
		0.01	-0.05	0.05	0.00	0.00	0.00	0.00	-0.05	-0.13

TABLE 145 EXPERIMENT 444 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1	CALLAND	1.50	112.50	58.00	17.75	2.00
7	COLUMBUS	1.00	197.75	34.00	17.00	2.00
3	FORREST	1.50	147.25	51.75	15.00	1.75
9	MULTIVAR 80	1.00	229.00	27.50	16.25	2.00
12	CLARK 63	1.50	205.50	67.25	13.00	1.75
2	WILLIAMS	1.00	98.00	43.50	17.50	2.00
5	AMSOY 71	1.25	164.25	36.75	14.50	1.25
13	TK-5	3.00	223.25	50.25	16.50	1.25
8	LINCOLN	1.00	214.75	25.25	14.50	1.50
15	SJ-4	1.00	195.25	55.75	14.00	1.50
11	TAINUNG 4	1.75	148.00	44.50	16.50	1.75
4	BEESON	1.50	218.25	19.75	17.25	1.75
14	ORBA	1.00	200.50	38.00	10.50	2.00
6	ALTONA	1.25	136.25	30.00	13.75	1.75
10	KAOHSIUNG E-32	1.00	159.50	96.25	10.75	1.75
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	-0.09	0.19	0.25	0.44++	0.01
DAYS TO	FLOWER	0.20	0.14	0.42++	-0.54++	-0.05
DAYS TO	MATURITY	0.06	0.15	0.00	-0.32+	0.05
NODULE	NUMBER 1	0.00	0.00	0.00	0.00	0.00
NODULE	NUMBER 2	0.00	0.00	0.00	0.00	0.00
NODULE	WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE	WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	-0.13	0.23	-0.18	-0.05	
LODGING	0.04	0.29+	0.46++	-0.41++	-0.13	
SHATTER	1.00	0.07	-0.00	0.23	-0.21	
PLANTS	HARVEST	0.07	1.00	-0.21	0.02	-0.11
PODS PER	PLANT	-0.00	-0.21	1.00	-0.22	-0.03
100 SEED	WEIGHT	0.23	0.02	-0.22	1.00	-0.02
QUALITY	OF SEED	-0.21	-0.11	-0.03	1.00	

TABLE 146 EXPERIMENT 34 YEAR 1976

REGION - ASIA
 SITE - SURAT THANI
 LATITUDE - 9 DEG. 7 MIN. N
 COOPERATORS - W. BURANATHAN, P. JEWTRAKOOL, P. WONGSUKON
 DATE PLANTED - MAY 22, 1976
 SOIL TYPE - SAND 79%, SILT 9%, CLAY 9%, PH 5.1
 FERTILIZER USED (KG/HA) - N 30.0, P 12.0, K 24.0
 AMOUNT OF MOISTURE - 534 MM
 LOCAL VARIETY - S.J.2

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
8	JUPITER	687.85	34.00	116.50	28.75	164.75	0.05	1.33	48.25	1.00
16	COLUMBUS	655.76	23.75	86.75	64.75	193.00	0.11	1.15	29.33	1.00
9	BOSSIER	612.83	26.00	85.25	79.25	274.75	0.18	1.55	22.60	1.00
14	IMPROVED PELICAN	591.37	33.00	93.75	30.00	136.25	0.12	1.51	42.08	1.00
5	HILL	571.36	25.00	83.00	41.00	109.50	0.10	0.89	25.15	1.00
11	CLARK 63	541.77	25.00	81.00	50.00	80.00	0.12	0.48	24.63	1.00
13	DAVIS	538.23	26.75	88.75	34.75	143.00	0.12	0.85	22.13	1.00
6	PICKETT 71	514.48	25.00	91.00	34.00	102.50	0.09	0.70	19.50	1.00
15	FORREST	469.68	26.00	89.25	63.00	173.25	0.43	1.04	25.33	1.00
4	RANSOM	444.05	25.50	82.50	45.25	147.25	0.07	0.51	21.55	1.00
7	S.J.2	433.63	33.00	94.00	41.50	149.00	0.17	1.59	40.03	1.00
12	COBB	419.25	26.50	105.00	65.25	203.00	0.23	1.89	24.08	1.00
1	CALLAND	395.08	26.50	90.00	73.00	195.00	0.18	0.83	29.93	1.00
10	WILLIAMS	379.03	25.75	82.75	69.75	125.50	0.22	0.84	23.35	1.00
3	BRAGG	271.30	26.75	102.25	40.50	323.00	0.09	1.91	26.93	1.00
2	WOODWORTH	270.68	25.25	69.00	13.50	40.25	0.03	0.19	19.80	1.00
STANDARD ERROR OF A VARIETY MEAN		GRAND MEAN	487.27	27.11	90.05	48.39	160.00	0.14	1.08	27.79
COEFFICIENT OF VARIATION		120.47	0.76	2.54	15.32	38.35	0.08	0.30	2.02	0.00%
5% LSD VARIETY MEANS (**=NS)		49.45%	5.62%	5.64%	6.30%	47.94%	109.50%	55.55%	14.53%	5.75
		*****	2.17	7.24	*****	109.25	*****	0.85	0.85	0.00
CORRELATIONS (* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	0.09	0.11	0.20	0.25+	0.11	0.37++	0.39++	0.00
DAYS TO FLOWER		0.09	1.00	0.50++	-0.24	-0.02	-0.12	0.18	0.75++	0.00
DAYS TO MATURITY		0.11	0.50++	1.00	0.14	0.42++	0.10	0.49++	0.57++	0.00
NODULE NUMBER 1		0.20	-0.24	0.14	1.00	0.56++	0.51++	0.51++	0.03	0.00
NODULE NUMBER 2		0.25+	-0.02	0.42++	0.56++	1.00	0.27+	0.83++	0.24	0.00
NODULE WEIGHT 1		0.11	-0.12	0.10	0.51++	0.27+	1.00	0.32+	-0.01	0.00
NODULE WEIGHT 2		0.37++	0.18	0.49++	0.51++	0.83++	0.32+	1.00	0.43++	0.00
PLANT HEIGHT		0.39++	0.75++	0.57++	0.03	0.24	-0.01	0.43++	1.00	0.00
LOGGING		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		-0.12	-0.60++	-0.35++	0.18	-0.02	0.16	-0.12	-0.50++	0.00
PODS PER PLANT		0.39++	0.69++	0.62++	-0.06	0.16	-0.05	0.40++	0.73++	0.00
100 SEED WEIGHT		0.20	-0.17	0.37++	0.36++	0.43++	0.13	0.20	0.08	0.00
QUALITY OF SEED		-0.25+	-0.09	0.22	-0.02	-0.01	-0.00	-0.12	-0.15	0.00

TABLE 146 EXPERIMENT 34 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	194.50	19.50	18.25	3.25	43.1	24.1
16	COLUMBUS	1.00	267.75	7.78	18.25	2.00	44.6	23.3
9	BOSSIER	1.00	236.75	10.10	16.88	3.60	44.2	24.0
14	IMPROVED PELICAN	1.00	217.25	13.75	13.75	1.75	43.9	23.9
5	HILL	1.00	315.00	7.28	15.50	2.00	40.9	22.5
11	CLARK 63	1.00	318.00	5.83	16.00	2.75	41.1	25.4
13	DAVIS	1.00	295.50	6.97	16.88	2.50	43.5	22.4
6	PICKETT 74	1.00	231.75	9.90	15.50	3.25	42.8	24.1
15	FORREST	1.00	285.25	10.03	15.75	2.25	42.9	22.3
4	RANSOM	1.00	261.50	6.25	17.00	2.25	40.5	26.3
7	S.J.2	1.00	193.75	14.80	13.00	2.25	42.4	23.7
12	COBB	1.00	284.75	10.58	17.50	3.00	39.7	24.5
1	CALLAND	1.00	267.00	5.20	22.38	3.00	41.4	22.8
10	WILLIAMS	1.00	283.25	4.73	17.63	3.00	44.3	22.7
3	BRAGG	1.00	278.50	7.55	18.88	2.75	43.7	22.8
2	WOODWORTH	1.00	256.50	4.93	14.13	3.00	43.4	22.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
STANDARD COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (**NS=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 147 EXPERIMENT 31 YEAR 1976

REGION - ASIA
SITE - SUWAN FARM
LATITUDE - 14 DEG. 30 MIN. N
COOPERATORS - P. YINGCHOL, J. VERAWUDH, E. SAROBOL
DATE PLANTED - AUGUST 4, 1976 DATE HARVESTED - OCTOBER, 1976
FERTILIZER USED (KG/HA) - N 40.0, P 21.8
AMOUNT OF MOISTURE - 593 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - THAILAND		
											ELEVATION - 367 M	LONGITUDE - 102 DEG. E	
2	WOODWORTH	736.89	23.00	65.00	55.75	177.75	0.13	1.40	52.50	2.50			
7	CUTLER 71	650.57	23.00	65.00	80.25	164.00	0.29	1.20	62.00	4.00			
10	WILLIAMS	623.74	23.00	65.00	83.00	228.75	0.32	1.62	53.00	4.00			
12	COBB	605.20	23.00	68.25	38.00	146.25	0.24	1.52	47.75	2.25			
1	CALLAND	589.17	23.00	65.75	62.50	161.00	0.23	1.09	63.75	3.75			
11	CLARK 63	520.81	23.00	65.00	72.50	159.75	0.23	0.98	56.25	4.25			
16	COLUMBUS	513.73	23.00	65.00	87.50	244.00	0.25	1.56	57.50	2.25			
6	PICKETT 71	460.13	23.00	65.00	36.00	178.25	0.13	1.64	35.50	1.50			
4	RANSOM	439.25	23.00	65.00	90.00	240.75	0.33	1.60	38.50	2.00			
5	HILL	411.22	30.00	66.50	83.50	130.00	0.37	0.87	52.00	3.00			
13	DAVIS	326.86	28.25	67.50	115.25	202.50	0.55	1.55	45.75	1.50			
3	BRAGG	278.11	23.00	65.25	115.25	445.00	0.26	1.94	48.50	2.50			
9	BOSSIER	271.07	23.00	65.00	82.00	270.75	0.36	2.33	40.25	1.75			
15	FORREST	252.00	23.00	66.00	57.50	207.75	0.14	1.35	45.75	2.25			
14	IMPROVED PELICAN	123.31	30.00	97.00	117.75	200.00	0.39	1.18	71.75	3.00			
8	JUPITER	38.76	44.00	97.00	237.00	286.00	1.32	1.30	75.25	3.00			
		GRAND MEAN	427.55	25.52	69.58	88.38	215.16	0.34	1.44	52.88	2.72		
		STANDARD ERROR OF A VARIETY MEAN	55.30	0.44	0.37	13.45	30.46	0.06	0.17	2.00	0.41		
		COEFFICIENT OF VARIATION	25.87%	3.43%	1.07%	30.44%	28.31%	33.47%	23.71%	7.55%	30.19%		
		5% LSD VARIETY MEANS (***)	157.53	1.25	1.06	38.32	86.75	0.16	0.49	5.68	1.17		
CORRELATIONS													
(+) - PROB=.05 (++) - PROB=.01)													
YIELD KG/HA	1.00	-0.58++	-0.60++	-0.61++	-0.35++	-0.60++	-0.08	-0.08	-0.11	-0.11	-0.11	0.20	
DAYS TO FLOWER	-0.58++	1.00	0.81++	0.80++	0.11	0.89++	-0.19	-0.19	-0.57++	-0.57++	-0.57++	0.04	
DAYS TO MATURITY	-0.60++	0.81++	1.00	0.65++	0.10	0.67++	-0.16	-0.16	-0.68++	-0.68++	-0.68++	0.06	
NODULE NUMBER 1	-0.61++	0.80++	0.65++	1.00	0.38++	0.90++	-0.03	-0.03	0.51++	0.51++	0.51++	0.08	
NODULE NUMBER 2	-0.35++	0.11	0.10	0.38++	1.00	0.25	0.67++	0.67++	-0.01	-0.01	-0.01	-0.22	
NODULE WEIGHT 1	-0.60++	0.89++	0.67++	0.90++	0.25	1.00	-0.01	-0.01	0.46++	0.46++	0.46++	0.03	
NODULE WEIGHT 2	-0.08	-0.19	-0.16	-0.03	0.67++	-0.01	-0.01	-0.01	-0.44++	-0.44++	-0.44++	-0.30+	
PLANT HEIGHT	-0.11	0.57++	0.68++	0.51++	-0.01	0.46++	-0.01	-0.01	1.00	1.00	1.00	0.44++	
LODGING	0.20	0.04	0.06	0.08	-0.22	0.03	-0.30+	-0.30+	0.04++	0.04++	0.04++	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.47++	-0.41++	-0.70++	-0.41++	-0.12	-0.39++	-0.01	-0.01	-0.39++	-0.39++	-0.39++	0.02	
PLANTS PLANT	0.16	-0.28+	0.00	-0.29+	-0.03	-0.35++	-0.08	-0.08	-0.00	-0.00	-0.00	-0.13	
PODS PER PLANT	-0.02	0.32+	0.49++	0.37++	-0.04	0.34++	-0.23	-0.23	0.74++	0.74++	0.74++	0.30+	
100 SEED WEIGHT	-0.50++	0.42++	0.42++	0.36++	0.09	0.36++	-0.21	-0.21	0.26+	0.26+	0.26+	-0.22	
QUALITY OF SEED													

TABLE 147 EXPERIMENT 31 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER PER HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
2	WOODWORTH	1.00	247.75	14.78	10.58	3.25	46.7
7	CUTLER 71	1.00	240.50	11.28	13.28	3.00	--
10	WILLIAMS	1.00	241.25	12.48	9.93	3.50	48.1
12	COBB	1.00	246.50	19.65	8.95	3.00	45.2
1	CALLAND	1.00	242.75	12.88	12.45	4.75	44.3
11	CLARK 63	1.00	249.75	14.58	10.38	3.00	46.4
16	COLUMBUS	1.00	243.75	15.33	11.88	3.75	48.6
6	PICCETT 71	1.00	218.25	13.00	7.75	3.00	48.4
4	RANSOM	1.00	246.00	14.55	9.45	4.50	--
5	HILL	1.00	270.00	11.20	8.97	4.25	--
13	DAVIS	1.00	262.00	11.43	9.57	4.50	50.3
3	BRAGG	1.00	242.00	13.38	9.00	3.75	47.5
9	BOSSIER	1.00	230.00	14.65	7.93	3.25	49.1
15	FORREST	1.00	265.25	16.28	7.27	5.00	48.6
14	IMPROVED PELICAN	1.00	158.00	17.55	13.70	4.75	--
8	JUPITER	1.00	192.25	9.97	12.30	5.00	--
	GRAND MEAN	1.00	237.25	13.93	10.21	3.89	
	STANDARD ERROR OF A VARIETY MEAN	0.00	10.27	1.35	0.49	0.28	
	COEFFICIENT OF VARIATION	0.00%	8.65%	19.38%	9.51%	14.18%	
	5% LST VARIETY MEANS (**NS=NS)	0.00	29.24	3.85	1.38	0.79	
	CORRELATIONS		(+ - PROB=.05)	(+ - PROB=.01)			
	YIELD KG/HA	0.00	0.47++	0.16	-0.02	-0.50++	
	DAYS TO FLOWER	0.00	-0.41++	-0.28+	0.32+	0.42++	
	DAYS TO MATURITY	0.00	-0.70++	0.00	0.49++	0.42++	
	NODULE NUMBER 1	0.00	-0.41++	-0.29+	0.37++	0.36++	
	NODULE NUMBER 2	0.00	-0.12	-0.03	-0.04	0.09	
	NODULE WEIGHT 1	0.00	-0.39++	-0.35++	0.34++	0.36++	
	NODULE WEIGHT 2	0.00	-0.01	0.08	-0.23	-0.21	
	PLANT HEIGHT	0.00	-0.39++	0.00	0.74++	0.26+	
	LODGING	0.00	0.02	-0.13	0.30+	-0.22	
	SHATTER	1.00	0.00	0.00	0.00	0.00	
	PLANTS HARVEST	0.00	1.00	-0.17	0.45++	-0.21	
	PODS PER PLANT	0.00	-0.17	1.00	-0.13	-0.02	
	100 SEED WEIGHT	0.00	-0.45++	-0.13	1.00	0.17	
	QUALITY OF SEED	0.00	-0.21	-0.02	0.17	1.00	

TABLE 148 EXPERIMENT 102 YEAR 1976

REGION - EUROPE
 SITE - GODOLLO
 LATITUDE - 47 DEG. N
 COOPERATOR - ANDOR BALINT
 DATE PLANTED - MAY 3, 1976
 SOIL TYPE - BLACK EARTH CLAY
 FERTILIZER USED (KG/HA) - N 50.0, P 150.0, K 100.0
 AMOUNT OF MOISTURE - 398 MM

COUNTRY - HUNGARY

LONGITUDE - 19 DEG. E

DATE HARVESTED - SEPTEMBER, 1976

GRAND MEAN
 STANDARD ERROR OF A VARIETY MEAN
 COEFFICIENT OF VARIATION
 5% LSD VARIETY MEANS (*****=NS)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
11 HODGSON	2172.00	66.00	156.00	47.00	0.00	0.00	0.00	0.00	70.35	1.00
14 SWIFT	1614.00	54.00	145.00	28.50	0.00	0.00	0.00	0.00	84.65	1.25
13 STEELE	1601.50	73.00	163.00	33.75	0.00	0.00	0.00	0.00	72.75	1.25
10 AMSOY 71	1392.00	60.00	145.00	35.75	0.00	0.00	0.00	0.00	88.90	1.00
7 BEESON	1379.00	57.00	145.00	45.25	0.00	0.00	0.00	0.00	86.37	1.25
12 HARK	1164.50	59.00	145.00	79.75	0.00	0.00	0.00	0.00	79.00	1.00
9 CORSOY	1112.00	60.00	145.00	56.75	0.00	0.00	0.00	0.00	86.87	1.25
2 WOODHORTH	1099.00	68.00	143.00	36.00	0.00	0.00	0.00	0.00	78.12	1.25
4 WILLIAMS	1073.50	56.00	140.00	45.50	0.00	0.00	0.00	0.00	84.52	2.50
3 CUTLER 71	1048.50	56.00	142.00	50.25	0.00	0.00	0.00	0.00	92.90	1.25
5 CLARK 63	994.00	55.00	149.00	41.25	0.00	0.00	0.00	0.00	80.18	1.50
15 ALTONA	839.50	54.00	146.00	27.50	0.00	0.00	0.00	0.00	46.98	1.00
1 CALLAND	804.00	56.00	129.00	31.75	0.00	0.00	0.00	0.00	84.98	1.00
6 WELLS	631.50	73.00	146.75	30.75	0.00	0.00	0.00	0.00	70.60	1.00
8 COLUMBUS	565.50	73.00	163.00	103.25	0.00	0.00	0.00	0.00	84.70	2.00
288										

C O R R E L A T I O N S
 (*) - PROB.=.05 (++) - PROB.=.01

YIELD KG/HA	1.00	-0.04	0.28+	-0.22	0.00	0.00	0.00	0.00	0.05	-0.11
DAYS TO FLOWER	-0.04	1.00	0.67++	0.22	0.00	0.00	0.00	0.00	-0.12	-0.01
DAYS TO MATURITY	0.28+	0.67++	1.00	0.38++	0.00	0.00	0.00	0.00	0.31+	0.16
NODULE NUMBER 1	-0.22	0.22	0.38++	1.00	0.00	0.00	0.00	0.00	0.21	0.17
NODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT	0.05	-0.12	0.31+	0.21	0.00	0.00	0.00	0.00	1.00	0.21
LODGING	-0.11	0.01	0.16	0.17	0.00	0.00	0.00	0.00	0.21	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HARVEST	-0.19	0.03	-0.06	-0.48++	0.00	0.00	0.00	0.00	-0.14	0.07
PLANT PODS PER	0.31+	0.09	0.43++	0.22	0.00	0.00	0.00	0.00	0.39++	0.19
100 SEED WEIGHT	0.40++	-0.19	-0.28+	-0.40++	0.00	0.00	0.00	0.00	-0.48++	-0.37++
QUALITY OF SEED	-0.41++	0.33++	0.34++	0.45++	0.00	0.00	0.00	0.00	0.38++	0.35++

TABLE 148 EXPERIMENT 102 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	HODGSON	1.00	245.50	18.03	16.63	3.00	38.7	19.9
14	SWIFT	1.00	293.75	15.35	19.20	1.75	39.9	18.3
13	STEELE	1.00	276.00	15.33	18.88	2.25	42.8	16.6
10	AMSOY 71	1.00	260.25	16.18	16.15	2.75	41.2	18.2
7	BEESEN	1.00	272.00	17.88	17.65	3.00	41.2	17.7
12	HARK	1.00	221.50	15.18	15.55	3.00	43.3	17.0
9	CORSOY	1.00	260.50	16.30	13.48	4.00	41.6	17.7
2	WOODWORTH	1.00	282.25	15.63	11.75	4.00	42.1	17.0
4	WILLIAMS	1.00	280.75	18.25	12.45	4.00	40.1	19.2
3	CUTLER 71	1.00	256.25	21.18	11.53	4.00	40.8	18.3
5	CLARK 63	1.00	290.75	15.53	11.15	4.00	39.6	19.0
15	ALTONA	1.00	271.00	9.70	21.58	1.75	40.5	18.0
1	CALLAND	1.00	267.25	10.90	13.20	3.00	39.9	18.6
6	WELLS	1.00	302.25	11.15	14.28	4.00	42.3	18.3
8	COLUMBUS	1.00	256.00	21.63	8.83	5.00	41.5	17.8
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)								
YIELD	KG/HA	0.00	-0.19	0.31+	0.40++	-0.41++		
DAYS TO FLOWER		0.00	-0.03	0.09	-0.19	0.33++		
DAYS TO MATURITY		0.00	-0.06	0.43++	-0.28+	0.34++		
NODULE NUMBER 1		0.00	-0.48++	0.22	-0.40++	0.45++		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.00	-0.14	0.39++	-0.48++	0.38++		
LODGING		0.00	-0.07	0.19	-0.37++	0.35++		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	-0.08	0.08	-0.01		
PODS PER PLANT		0.00	-0.08	1.00	-0.32+	0.30+		
100 SEED WEIGHT		0.00	0.08	-0.32+	1.00	-0.87++		
QUALITY OF SEED		0.00	-0.01	0.30+	-0.87++	1.00		

TABLE 149 EXPERIMENT 101 YEAR 1976

REGION - EUROPE
 SITE - SZARVAS
 LATITUDE - 46 DEG. 51 MIN. N
 COOPERATOR - ELEMER POSGY
 DATE PLANTED - MAY 7, 1976
 SOIL TYPE - SAND 18.0%, SILT 38.1%, CLAY 43.9%, PH 6.8
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 339 MM
 NUMBER OF IRRIGATIONS - 3 (120 MM)
 SUBSTITUTE VARIETY - MERIT
 LOCAL VARIETY - GSZ-3

COUNTRY - HUNGARY
 ELEVATION - 84 M
 LONGITUDE - 20 DEG. 35 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE NUMBER 3	NODULE NUMBER 4	NODULE NUMBER 5	NODULE NUMBER 6	PLANT HEIGHT 1	PLANT HEIGHT 2	LODGING
3	HODGSON	3021.00	43.50	147.00	38.00	176.50	0.12	0.85	114.25	3.50			
2	GSZ-3	2789.50	44.00	148.00	24.00	28.00	0.15	0.26	126.60	4.75			
5	SWIFT	2594.00	45.25	151.00	72.50	212.00	0.24	1.17	121.60	4.50			
4	STEELE	2413.50	44.50	156.00	96.50	209.50	0.43	1.25	115.70	4.75			
1	MERIT	2367.50	44.50	137.00	57.00	67.50	0.24	0.67	103.60	3.75			
6	ALTONA	1537.50	42.50	121.00	47.50	27.50	0.14	0.24	77.10	2.25			
	GRAND MEAN	2453.83	44.04	143.33	55.92	120.17	0.22	0.74	109.81	3.92			
	STANDARD ERROR OF A VARIETY MEAN	101.00	0.63	0.00	24.78	45.75	0.11	0.33	8.01	0.41			
	COEFFICIENT OF VARIATION	8.23%	2.87%	0.00%	88.63%	76.15%	102.22%	88.15%	14.59%	21.02%			
5	ISD VARIETY MEANS (*****=NS)	304.46	*****	0.00	*****	137.91	*****	*****	24.14	1.24			

(+ - PROB=.05 ++ - PROB=.01)

C O R R E L A T I O N S

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE NUMBER 3	NODULE NUMBER 4	NODULE NUMBER 5	NODULE NUMBER 6	PLANT HEIGHT 1	PLANT HEIGHT 2	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.31	0.74++	-0.10	0.24	-0.02	0.14	0.68++	0.16	0.19	0.30	0.24	0.11	0.12	0.16	0.22	
0.31	1.00	0.43+	-0.07	0.27	-0.05	0.30	0.83++	0.37	0.31	0.08	0.02	0.19	0.16	0.20	0.24	
0.74++	0.43+	1.00	0.16	0.46+	0.25	0.37	0.51++	0.51++	1.00	0.09	0.09	0.72++	0.72++	0.72++	0.72++	
-0.10	-0.07	-0.16	1.00	0.48+	0.83++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	
-0.10	-0.07	-0.16	1.00	0.48+	1.00	0.27	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	
0.24	0.27	0.46+	0.48+	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	
0.02	0.05	0.25	0.83++	0.51++	0.51++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	0.94++	
0.14	0.30	0.37	0.51++	0.02	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	
0.68++	0.19	0.72++	0.72++	0.02	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
0.56++	0.12	0.48+	0.48+	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
0.30	0.16	0.03	0.03	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
0.72++	0.23	-0.19	-0.19	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	
0.22	-0.03	0.02	0.02	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	

TABLE 149 EXPERIMENT 101 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT OF SEED	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	HODGSON	1.00	185.50	30.00	17.80	1.25	41.8	18.7
2	GSZ-3	1.25	141.50	33.25	17.90	1.00	42.0	18.0
5	SWIFT	1.00	170.50	24.25	18.50	1.00	41.1	17.9
4	STEELE	1.00	185.25	26.75	19.40	2.00	43.5	17.5
1	MERIT	1.25	115.25	62.00	16.35	1.00	41.7	18.8
6	ALTONA	1.00	187.00	26.75	19.28	1.00	43.6	16.7
	GRAND MEAN	1.08	164.17	33.83	18.20	1.21		
	STANDARD ERROR OF A VARIETY MEAN	0.13	16.16	5.06	0.62	0.10		
	COEFFICIENT OF VARIATION	23.83%	19.69%	29.90%	6.84%	16.89%		
5*	1ST VARIETY MEANS (*****=NS)	*****	48.72	15.25	1.88	0.31		
	C O R R E L A T I O N S		(+ - PROB=.05	(+ - PROB=.05				
	YIELD	KG/HA	0.09	0.01	-0.01	-0.16	0.14	
	DAYS TO FLOWER		0.40	-0.30	-0.23	-0.03	0.12	
	DAYS TO MATURITY		-0.02	0.03	-0.19	0.02	0.48+	
	NODULE NUMBER 1		-0.04	0.04	-0.16	-0.08	0.28	
	NODULE NUMBER 2		-0.17	0.15	-0.16	0.22	0.49+	
	NODULE WEIGHT 1		-0.01	-0.02	-0.08	-0.07	0.36	
	NODULE WEIGHT 2		-0.09	0.01	-0.01	0.18	0.41+	
	PLANT HEIGHT		-0.05	0.12	-0.21	-0.01	0.10	
	LODGING		-0.11	0.16	-0.23	-0.04	0.22	
	SHATTER		1.00	-0.49+	0.55++	-0.12	-0.15	
	PLANTS HARVEST		-0.49+	1.00	-0.64++	0.43+	0.27	
	PODS PER PLANT		0.55++	-0.64++	1.00	-0.45+	-0.19	
	100 SEED WEIGHT		-0.12	0.43+	-0.45+	1.00	0.40	
	QUALITY OF SEED		-0.15	0.27	-0.19	0.40	1.00	

TABLE 150

EXPERIMENT 97 YEAR 1976

REGION - EUROPE
 SITE - SASSARI, SARDINIA
 LATITUDE - 40 DEG. 43 MIN. N
 COOPERATOR - G. RIVOLTA
 DATE PLANTED - JUNE 8, 1976
 SOIL TYPE - SAND 55.4%, SILT 19.6%, CLAY 25.0%, PH 7.9
 FERTILIZER USED (KG/HA) - P 50.0
 AMOUNT OF MOISTURE - 675 MM
 NUMBER OF IRRIGATIONS - 7

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	WELLS	4139.99	35.00	129.00	0.00	0.00	0.00	0.00	121.75	2.00
13	AMSOY 71	4092.48	35.25	133.50	0.00	0.00	0.00	0.00	120.25	2.75
14	HODGSON	3994.13	33.00	114.00	0.00	0.00	0.00	0.00	100.75	1.75
12	CORSOY	3967.46	35.75	121.50	0.00	0.00	0.00	0.00	115.00	1.75
5	WILLIAMS	3817.85	43.00	135.25	0.00	0.00	0.00	0.00	125.00	2.00
9	BEESON	3674.07	35.00	132.75	0.00	0.00	0.00	0.00	115.00	2.50
2	WOODWORTH	3589.47	43.00	114.00	0.00	0.00	0.00	0.00	107.00	2.75
1	CALLAND	3429.44	43.00	133.50	0.00	0.00	0.00	0.00	130.00	3.75
6	CLARK 63	3223.98	45.00	136.75	0.00	0.00	0.00	0.00	133.75	3.00
15	HARK	3215.64	33.75	134.50	0.00	0.00	0.00	0.00	105.50	2.00
16	STEELE	2890.16	33.00	114.00	0.00	0.00	0.00	0.00	91.25	2.00
4	CUTLER 71	2865.16	45.00	149.00	0.00	0.00	0.00	0.00	118.50	2.00
10	COLUMBUS	2697.21	47.00	145.75	0.00	0.00	0.00	0.00	119.25	3.50
11	ESSEX	2633.44	77.50	192.00	0.00	0.00	0.00	0.00	120.25	4.25
7	FORREST	1833.70	76.00	192.00	0.00	0.00	0.00	0.00	141.25	4.25
3	HILL	1587.82	77.50	192.00	0.00	0.00	0.00	0.00	112.75	3.50
GRAND MEAN										
		3228.25	46.11	141.84	0.00	0.00	0.00	0.00	117.33	2.73
		3222.62	0.24	2.72	0.00	0.00	0.00	0.00	7.89	0.56
		19.99%	1.05%	3.84%	0.00%	0.00%	0.00%	0.00%	13.45%	40.60%
		918.97	0.69	7.76	0.00	0.00	0.00	0.00	22.48	1.58

CORRELATIONS (+ - PROB=.05 ** - PROB=.01)

YIELD KG/HA	DAY TO FLOWER	DAY TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NOODE NUMBER 1	NOODE NUMBER 2	NOODE WEIGHT 1	NOODE WEIGHT 2	PLANT HEIGHT	PLANT LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	-0.57++	-0.50++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	-0.41++	0.54++	0.54++	0.54++
-0.00	0.93++	0.93++	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25+	0.33++	0.33++	0.33++
0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.41++	0.25++	0.33++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.11	0.54++	0.55++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.08	-0.17	-0.33++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.14	0.35++	0.39++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.52++	-0.73++	-0.64++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.04	0.54++	0.46++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 150 EXPERIMENT 97 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	WELLS	1.00	264.75	31.85	20.48	2.50
13	AMSOY 71	1.00	233.25	29.43	23.50	1.75
14	HODGSON	1.00	241.00	35.03	21.65	1.75
12	CORSOY	1.00	236.25	32.80	19.40	2.00
5	WILLIAMS	1.00	241.00	24.95	24.80	1.75
9	BEESON	1.00	227.75	28.88	23.00	1.75
2	WOODWORTH	1.00	270.50	26.18	20.28	3.00
1	CALLAND	1.00	219.50	27.33	21.77	2.75
6	CLARK 63	1.00	235.25	36.93	20.95	2.25
15	HARK	1.00	212.75	25.95	20.80	2.00
16	STEELE	1.00	257.25	19.25	21.80	1.50
4	CUTLER 71	1.00	194.00	30.88	24.00	2.75
10	COLUMBUS	1.00	197.00	45.00	19.33	2.50
11	ESSEX	1.00	239.50	38.75	16.00	3.25
7	FORREST	1.00	207.75	46.03	15.75	2.75
3	HILL	1.00	225.75	32.05	15.10	3.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD	KG/HA	0.00	0.08	0.14	0.52++	-0.04
DAYS TO FLOWER	0.00	-0.17	0.35++	-0.73++	0.54++	
DAYS TO MATURITY	0.00	-0.33++	0.39++	-0.64++	0.46++	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	-0.43++	0.59++	-0.00	0.44++	
LODGING	0.00	-0.27+	0.45++	-0.28+	0.52++	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.48++	0.04	-0.29+	
PODS PER PLANT	0.00	-0.48++	1.00	-0.21	0.47++	
100 SEED WEIGHT	0.00	0.04	-0.21	1.00	-0.34++	
QUALITY OF SEED	0.00	-0.29+	0.47++	-0.34++	1.00	

TABLE 151 EXPERIMENT 99 YEAR 1976

REGION - EUROPE
 SITE - USSANA, SARDINIA, N.
 LATITUDE - 39 DEG. 25 MIN. N.
 COOPERATOR - CENTRO REGIONALE AGRARIO SPERIMENTALE
 DATE PLANTED - JUNE 16, 1976
 SOIL TYPE - SAND 42.6%, SILT 23.7%, CLAY 33.7%, PH 8.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0
 AMOUNT OF MOISTURE - 684 MM
 NUMBER OF IRRIGATIONS - 15

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER Maturity	DAYS TO Maturity	DAYS TO Module Number 1	DAYS TO Module Number 2	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
2	WOODWORTH	2352.55	44.00	123.00	0.00	0.00	0.00	0.00	0.00	0.00	83.80	1.50
12	CORSOY	2306.71	36.00	132.00	0.00	0.00	0.00	0.00	0.00	0.00	78.00	1.75
13	AMSOY 71	2242.11	36.00	133.75	0.00	0.00	0.00	0.00	0.00	0.00	89.10	2.75
5	WILLIAMS	2208.77	44.00	127.00	0.00	0.00	0.00	0.00	0.00	0.00	93.87	1.25
9	BEESON	2169.18	38.00	129.00	0.00	0.00	0.00	0.00	0.00	0.00	98.10	2.50
14	HODGSON	2167.10	36.00	129.00	0.00	0.00	0.00	0.00	0.00	0.00	72.98	1.00
6	CLARK 63	2154.60	44.00	129.00	0.00	0.00	0.00	0.00	0.00	0.00	98.37	2.00
1	CALLAND	2090.00	38.00	130.75	0.00	0.00	0.00	0.00	0.00	0.00	106.45	2.00
15	HARK	1994.15	36.00	123.00	0.00	0.00	0.00	0.00	0.00	0.00	86.40	2.00
16	STEELE	1742.01	44.25	129.00	0.00	0.00	0.00	0.00	0.00	0.00	72.70	1.75
4	CUTLER 71	1739.93	44.00	127.00	0.00	0.00	0.00	0.00	0.00	0.00	109.48	1.75
8	WELLS	1596.15	40.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	86.07	1.50
7	FORREST	1414.87	59.00	151.00	0.00	0.00	0.00	0.00	0.00	0.00	123.80	4.25
10	COLUMBUS	1383.61	56.75	130.00	0.00	0.00	0.00	0.00	0.00	0.00	104.85	3.50
3	HILL	1373.19	69.00	151.00	0.00	0.00	0.00	0.00	0.00	0.00	94.07	3.25
11	ESSEX	1256.50	59.00	148.50	0.00	0.00	0.00	0.00	0.00	0.00	92.23	2.00
		1886.97	45.25	133.00	0.00	0.00	0.00	0.00	0.00	0.00	93.14	2.17
		185.30	2.27	2.07	0.00	0.00	0.00	0.00	0.00	0.00	3.68	0.44
		19.64%	10.05%	3.11%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	7.91%	40.07%
		527.81	6.47	5.89	0.00	0.00	0.00	0.00	0.00	0.00	10.49	1.24
CORRELATIONS												
(+) - PROB=.05 (++) - PROB=.01)												
YIELD KG/HA	1.00	-0.57++	-0.45++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.19	-0.14
DAYS TO FLOWER	-0.57++	1.00	0.67++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35++	0.43++
DAYS TO MATURITY	-0.45++	0.67++	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27+	0.45++
MODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	-0.19	0.35++	0.27+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOGGING	-0.14	0.43++	0.45++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46++	1.00
SHATTER	0.24	-0.09	-0.38++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.08
PLANTS HARVEST	0.17	-0.38++	-0.39++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.28+	-0.51++
PODS PER PLANT	-0.16	0.46++	0.69++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.56++
100 SEED QUALITY	0.54++	-0.38++	-0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.21	-0.06
OF SEED	0.22	-0.52++	-0.26+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.65++	-0.39++

TABLE 151

EXPERIMENT 99 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
2	WOODWORTH	2.00	247.75	23.53	18.80	3.00
12	CORSOY	1.25	227.00	32.90	19.88	3.50
13	AMSOY 71	1.25	247.75	30.50	20.93	3.25
5	WILLIAMS	2.00	272.25	21.30	20.08	3.00
9	BEESON	1.50	263.00	23.38	19.23	3.00
14	HODGSON	1.00	266.50	27.10	18.33	3.25
6	CLARK 63	2.00	245.50	24.48	16.53	2.50
1	CALLAND	1.25	259.00	27.00	19.30	3.00
15	HARK	1.25	222.00	33.10	20.60	3.25
16	STEELE	1.00	262.00	26.25	20.13	4.00
4	CUTLER 71	1.75	239.00	22.23	18.48	2.00
8	WELLS	1.00	270.75	25.08	16.58	4.00
7	FORREST	1.00	174.25	46.65	17.73	2.00
10	COLUMBUS	2.00	235.50	24.35	15.38	2.00
3	HILL	1.00	180.00	44.30	17.28	2.00
11	ESSEX	1.00	268.50	30.03	16.18	3.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (***(****=NS))						

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

YIELD	KG/HA	0.26+	0.17	-0.16	0.54++	0.22
DAYS TO FLOWER		-0.09	-0.38++	0.46++	-0.38++	-0.52++
DAYS TO MATURITY		-0.38++	-0.39++	0.69++	-0.16	-0.26+
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.15	-0.28+	0.21	-0.21	-0.65++
LODGING		0.08	-0.51++	0.56++	-0.06	-0.39++
SHATTER		1.00	0.12	-0.40++	0.04	-0.27+
PLANTS HARVEST		0.12	1.00	-0.74++	-0.01	0.44++
PODS PER PLANT		-0.40++	-0.74++	1.00	0.02	-0.29+
100 SEED WEIGHT		0.04	-0.01	0.02	1.00	0.24
QUALITY OF SEED		-0.27+	0.44++	-0.29+	0.24	1.00

TABLE 152 EXPERIMENT 120 YEAR 1976

REGION - EUROPE
 SITE - RADZIKOW
 LATITUDE - 52 DEG. 13 MIN. N
 COOPERATOR - SOYBEAN LABORATORY, PLANT BREEDING AND ACCLIMATIZATION INSTITUTE
 DATE PLANTED - MAY 25, 1976
 DATE HARVESTED - OCTOBER, 1976
 SOIL TYPE - LIGHT CLAY PODSOL, PH 5.8
 FERTILIZER USED (KG/HA) - N 25.0, P 35.2, K 83.0
 AMOUNT OF MOISTURE - 227 MM
 LOCAL VARIETY - WARSZAWSKA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS	
											(+ - PROB=.05	(+ + - PROB=.01)
4	NORMAN	1371.94	43.50	124.75	42.75	81.00	0.29	0.91	73.32	1.50		
5	WARSZAWSKA	1292.34	42.50	125.75	47.75	53.00	0.43	1.31	61.05	2.50		
2	PORTAGE	1204.41	42.75	123.50	26.00	62.25	0.14	0.63	71.43	1.00		
3	ACME	1181.49	42.50	124.00	24.25	68.25	0.14	0.88	73.73	1.25		
1	ALTONA	1166.07	42.25	122.00	18.00	27.25	0.13	0.47	73.60	1.75		
	GRAND MEAN	1243.25	42.70	124.00	31.75	58.35	0.22	0.84	70.62	1.60		
	STANDARD ERROR OF A VARIETY MEAN	96.45	0.34	1.00	11.33	9.76	0.08	0.22	2.96	0.30		
	5% LSD VARIETY MEANS (*****=NS)	15.22	1.59%	1.61%	71.37%	33.46%	68.83%	52.65%	8.38%	37.41%	0.92	
					*****	*****	*****	*****	*****	*****	9.12	

TABLE 152 EXPERIMENT 120 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4 NORMAN	1.00	303.00	19.15	18.05	1.50	44.8	14.1	
5 WARSZAWSKA	1.00	290.75	26.25	17.75	2.00	43.8	15.3	
2 PORTAGE	1.00	303.00	18.78	19.95	2.50	45.2	16.0	
3 ACME	1.00	302.00	21.67	20.35	2.00	45.6	14.5	
1 ALTONA	1.00	299.75	14.80	20.70	1.00	44.0	17.5	
GRAND MEAN	1.00	299.70	20.13	19.36	1.80			
STANDARD ERROR OF A VARIETY MEAN	0.00	2.96	2.13	0.61	0.18			
COEFFICIENT OF VARIATION	0.00%	1.98%	21.16%	6.31%	20.29%			
5% LSD VARIETY MEANS (**NS=NS)	0.00	*****	6.56	1.88	0.56			
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA	0.00	-0.13	0.42	-0.58++	-0.14			
DAYS TO FLOWER	0.00	0.13	-0.24	-0.16	0.09			
DAYS TO MATURITY	0.00	0.26	0.08	0.06	0.41			
NODULE NUMBER 1	0.00	-0.32	0.20	-0.37	-0.14			
NODULE NUMBER 2	0.00	-0.20	0.13	-0.43	0.26			
NODULE HEIGHT 1	0.00	-0.48+	0.38	-0.45+	-0.17			
NODULE WEIGHT 2	0.00	-0.42	0.17	-0.44	0.12			
PLANT HEIGHT	0.00	0.11	-0.38	0.22	-0.11			
LODGING	0.00	-0.17	0.42	-0.29	-0.18			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.31	0.45+	0.19			
PODS PER PLANT	0.00	-0.31	1.00	-0.50+	0.22			
100 SEED WEIGHT	0.00	0.45+	-0.50+	1.00	0.01			
QUALITY OF SEED	0.00	0.19	0.22	0.01	1.00			

TABLE 153 EXPERIMENT 74 YEAR 1976

REGION - EUROPE
 SITE - PORTO
 LATITUDE - 41 DEG. 20 MIN. N
 COOPERATORS - A. SILVA, D.S. SOUSA,
 DATE PLANTED - MAY 18-19, 1976
 SOIL PH 5.7
 FERTILIZER USED (KG/HA) - N 400.0, P 90.0, K 90.0
 AMOUNT OF MOISTURE - 628 MM
 NUMBER OF IRRIGATIONS - 4

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG./HA	DAYS TO FLOWER	DAYS TO MATURITY	NUODULE NUMBER 1	NUODULE NUMBER 2	NUODULE WEIGHT 1	NUODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	WELLS	2306.71	48.50	124.50	0.00	0.00	0.00	0.00	87.50	1.50
1	CALLAND	2221.28	59.75	140.25	0.00	0.00	0.00	0.00	98.75	2.00
2	WOODWORTH	2202.52	51.25	164.50	0.00	0.00	0.00	0.00	89.25	2.00
8	BERSON	2194.19	53.50	127.25	0.00	0.00	0.00	0.00	97.02	2.50
4	WILLIAMS	2192.10	61.25	135.50	0.00	0.00	0.00	0.00	97.47	1.75
5	CLARK 63	2144.18	64.00	140.75	0.00	0.00	0.00	0.00	108.13	3.75
3	CUTLER 71	2075.41	64.50	155.00	0.00	0.00	0.00	0.00	118.00	3.25
9	COLUMBUS	1041.87	55.25	187.25	0.00	0.00	0.00	0.00	107.83	3.75
10	ESSEX	754.32	90.00	181.50	0.00	0.00	0.00	0.00	116.05	4.00
6	FORREST	581.37	94.25	186.00	0.00	0.00	0.00	0.00	127.50	5.00
GRAND MEAN		1771.40	64.23	154.25	0.00	0.00	0.00	0.00	104.75	2.95
STANDARD ERROR OF A VARIETY MEAN		221.96	0.63	5.07	0.00	0.00	0.00	0.00	3.11	0.61
COEFFICIENT OF VARIATION		25.06%	1.95%	6.57%	0.00%	0.00%	0.00%	0.00%	5.94%	41.31%
5% LSD VARIETY MEANS (**=*****=NS)		644.07	1.82	14.70	0.00	0.00	0.00	0.00	9.02	1.77
CORRELATIONS										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG./HA	1.00	-0.68++	-0.77++	0.00	0.00	0.00	0.00	-0.67++	-0.71++
DAYS TO FLOWER		-0.68++	1.00	0.57++	0.00	0.00	0.00	0.00	0.76++	0.53++
DAYS TO MATURITY		-0.77++	0.57++	1.00	0.00	0.00	0.00	0.56++	0.54++	
NUODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NUODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NUODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NUODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.67++	0.76++	0.56++	0.00	0.00	0.00	0.00	1.00	0.73++
LODGING		-0.71++	0.53++	0.54++	0.00	0.00	0.00	0.00	0.73++	1.00
SHATTER		0.08	-0.29	-0.13	0.00	0.00	0.00	0.00	-0.26	-0.04
PLANTS HARVEST		0.03	0.01	0.08	0.00	0.00	0.00	0.00	0.20	0.09
PODS PER PLANT		0.43++	-0.25	-0.33+	0.00	0.00	0.00	0.00	-0.33+	-0.31
100 SEED WEIGHT		0.54++	-0.44++	-0.50++	0.00	0.00	0.00	0.00	-0.10	-0.06
QUALITY OF SEED		-0.20	0.05	0.13	0.00	0.00	0.00	0.00	-0.02	0.20

TABLE 153 EXPERIMENT 74 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	WELLS	2.25	145.75	58.23	18.50	5.00	44.3	19.4
1	CALLAND	1.25	161.75	41.58	23.25	4.75	42.4	20.2
2	WOODWORTH	1.50	154.75	46.13	17.25	5.00	41.1	19.9
8	BEESON	2.00	165.75	56.25	21.25	4.75	43.8	19.1
4	WILLIAMS	1.25	117.00	45.55	22.00	3.75	41.1	19.9
5	CLARK 63	1.25	145.75	47.25	20.75	3.50	41.9	20.2
3	CUTLER 71	1.00	182.25	43.70	23.00	4.00	41.4	20.0
9	COLUMBUS	1.75	134.50	33.00	18.25	4.25	41.8	21.8
10	ESSEX	1.50	164.00	38.73	15.75	4.75	43.2	18.8
6	FORREST	1.00	143.50	37.83	15.25	5.00	40.7	17.3
	GRAND MEAN	1.48	151.50	44.82	19.53	4.48		
	STANDARD ERROR OF A VARIETY MEAN	0.37	16.87	7.73	0.90	0.37		
	COEFFICIENT OF VARIATION	50.32%	22.27%	34.49%	9.24%	16.47%		
5*	LSD VARIETY MEANS (**=*****=NS)	*****	*****	*****	2.62	1.07		
	CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)							
	YIELD	KG/HA	0.08	0.03	0.43++	0.54++	-0.20	
	DAYS TO FLOWER	-0.29	0.01	-0.25	-0.44++	-0.05		
	DAYS TO MATURITY	-0.13	-0.08	-0.33+	-0.50++	0.13		
	ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00		
	ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
	ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	-0.26	0.20	-0.33+	-0.10	-0.02		
	LODGING	-0.04	0.09	-0.31	-0.06	0.20		
	SHATTER	1.00	-0.17	0.07	-0.02	-0.27		
	PLANTS HARVEST	-0.17	1.00	-0.44++	0.17	0.17		
	PODS PER PLANT	0.07	-0.44++	1.00	0.11	-0.09		
	100 SEED WEIGHT	-0.02	0.17	0.11	1.00	-0.07		
	QUALITY OF SEED	0.27	0.17	-0.09	-0.07	1.00		

TABLE 154 EXPERIMENT 301 YEAR 1976

REGION - EUROPE
SITE - SEVILLE
LATITUDE - 37 DEG. 30 MIN. N
COOPERATOR - I.N.T.A.
DATE PLANTED - JUNE 18, 1976
SOIL TYPE - SILTY CLAY, PH 7.25
FERTILIZER USED (KG/HA) - N 25.0, P 55.0, K 105.0
AMOUNT OF MOISTURE - 677 MM
NUMBER OF IRRIGATIONS - 9 (450 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	DAKS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	BEESON	4385.00	26.75	102.25	112.50	175.25	0.45	1.66	107.50	2.75
4	WILLIAMS	4216.25	27.00	105.25	122.75	262.75	0.29	1.72	103.75	2.00
9	CORSOY	3989.37	26.50	98.75	149.25	316.00	0.30	3.03	92.25	4.00
10	AMSOY 71	3928.12	26.50	101.75	110.25	255.50	0.18	1.77	115.00	3.75
2	WOODWORTH	3920.00	28.00	100.50	98.25	181.00	0.19	1.13	96.75	1.50
1	CALLAND	3866.87	26.50	114.75	116.50	174.00	0.30	1.06	117.00	2.75
6	WELLS	3840.00	25.50	97.75	95.75	242.50	0.33	2.17	101.25	1.75
5	CLARK 63	3831.25	27.25	113.75	140.00	263.25	0.28	1.50	106.25	2.75
12	HARK	3784.37	23.25	96.50	73.75	278.75	0.09	1.63	105.50	2.00
3	CUTLER 71	3634.37	27.25	114.25	202.75	322.25	0.57	1.59	114.25	3.25
13	STEELE	3570.62	23.00	84.25	83.75	262.00	0.12	1.68	96.25	2.75
8	COLUMBUS	3563.12	28.75	119.00	138.50	308.75	0.33	1.66	107.75	2.75
11	HODGSON	3560.00	23.00	84.75	102.00	186.50	0.10	1.16	90.50	2.00
GRAND MEAN		3853.03	26.12	102.58	118.92	248.35	0.27	1.67	104.15	2.62
STANDARD ERROR OF A VARIETY MEAN		163.48	0.24	1.25	18.45	35.50	0.06	0.27	3.04	0.31
COEFFICIENT OF VARIATION (%)		8.49%	1.85%	2.44%	31.03%	28.59%	40.66%	31.80%	5.83%	23.51%
5% LSD VARIETY MEANS (****=NS)		468.90	0.69	3.58	52.92	101.83	0.16	0.76	8.71	0.88
C O R R E L A T I O N S										
(+ - PROB=.05 + - PROB=.01)										
YIELD	KG/HA	1.00	0.12	0.16	0.11	0.12	0.38++	0.39++	0.06	-0.06
DAKS TO FLOWER		0.12	1.00	0.79++	0.36++	0.10	0.42++	0.04	0.33+	0.21
DAKS TO MATURITY		0.16	0.79++	1.00	0.42++	0.15	0.52++	-0.02	0.60++	0.21
NODULE NUMBER 1		0.11	0.36++	0.42++	1.00	0.36++	0.70++	0.18	0.19	0.22
NODULE NUMBER 2		0.12	0.10	0.15	0.36++	1.00	0.20	0.66++	-0.15	0.15
NODULE WEIGHT 1		0.38++	0.42++	0.52++	0.70++	0.20	0.22	0.22	0.34+	0.13
NODULE WEIGHT 2		0.39++	0.04	-0.02	0.18	0.66++	0.22	1.00	-0.24	0.17
PLANT HEIGHT		0.06	0.33+	0.60++	0.19	-0.15	0.34*	-0.24	1.00	-0.29+
LODGING		-0.06	0.21	0.21	0.22	0.15	0.13	0.17	0.29+	1.00
SHATTER		-0.28+	0.07	0.14	0.10	-0.12	0.05	-0.17	0.16	0.06
PLANTS HARVEST		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.42++	0.38++	0.49++	0.29*	-0.04	0.50++	-0.05	0.42++	0.11
QUALITY OF SEED		-0.14	-0.34+	-0.29+	-0.17	-0.04	-0.50++	-0.17	-0.04	-0.30+

TABLE 154 EXPERIMENT 301 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	BEESEN	1.00	0.00	0.00	22.35	3.00	41.1	20.2
4	WILLIAMS	1.00	0.00	0.00	22.88	1.75	40.1	21.9
9	CORSOY	1.00	0.00	0.00	18.13	3.00	40.4	21.1
10	AMSOY 71	1.00	0.00	0.00	19.68	2.75	39.0	22.3
2	WOODWORTH	1.00	0.00	0.00	19.73	2.00	39.7	21.1
1	CALLAND	1.00	0.00	0.00	22.10	3.00	41.2	20.4
6	WELLS	1.00	0.00	0.00	17.40	3.00	41.1	20.8
5	CLARK 63	1.00	0.00	0.00	19.93	2.75	41.1	21.0
12	HARK	1.00	0.00	0.00	17.85	2.75	40.6	20.9
3	CUTLER 71	1.50	0.00	0.00	22.60	2.50	40.9	20.1
13	STEELE	1.00	0.00	0.00	19.73	2.75	40.9	21.2
8	COLUMBUS	1.00	0.00	0.00	18.83	1.75	40.4	20.8
11	HODGSON	1.00	0.00	0.00	17.53	2.75	39.1	22.4
	GRAND MEAN	1.04	0.00	0.00	19.90	2.60		
	STANDARD ERROR OF A VARIETY MEAN	0.14	0.00	0.00	0.41	0.14		
	COEFFICIENT OF VARIATION	26.71%	0.00%	0.00%	4.09%	10.76%		
	5% LSD VARIETY MEANS (*****=NS)	*****	0.00	0.00	1.17	0.40		
	C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)							
	YIELD	KG/HA	-0.28+	0.00	0.00	0.42++	-0.14	
	DAYS TO FLOWER	0.07	0.00	0.00	0.38++	-0.34+		
	DAYS TO MATURITY	0.14	0.00	0.00	0.49++	-0.29+		
	NODULE NUMBER 1	0.10	0.00	0.00	0.29+	-0.17		
	NODULE NUMBER 2	-0.12	0.00	0.00	-0.04	-0.04		
	NODULE WEIGHT 1	0.05	0.00	0.00	0.50++	-0.17		
	NODULE WEIGHT 2	-0.17	0.00	0.00	-0.05	0.10		
	PLANT HEIGHT	0.16	0.00	0.00	0.42++	-0.04		
	LODGING	0.06	0.00	0.00	0.11	0.30+		
	SHATTER	1.00	0.00	0.00	0.19	0.10		
	PLANTS HARVEST	0.00	1.00	0.00	0.00	0.00		
	PODS PER PLANT	0.00	0.00	1.00	0.00	0.00		
	100 SEED WEIGHT	0.19	0.00	0.00	1.00	-0.20		
	QUALITY OF SEED	0.1	0.00	0.00	-0.20	1.00		

TABLE 155 EXPERIMENT 998 YEAR 1976

REGION - EUROPE
 SITE - NOVI SAD
 LATITUDE - 45 DEG. 20 MIN. N
 COOPERATOR - BOGDAN BELIC
 DATE PLANTED - APRIL 23, 1976
 SOIL TYPE - SILT, PH 8.1
 FERTILIZER USED (KG/HA) - N 30.0, P 60.0, K 50.0
 AMOUNT OF MOISTURE - 410 MM
 LOCAL VARIETIES - BELI FOUR, KASNA

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - YUGO SLAVIA	
											ELEVATION - 80 M	LONGITUDE - 19 DEG. 51 MIN. E
11	HODGSON	3551.96	46.00	137.00	26.00	46.50	0.27	0.38	90.25	0.25		
5	WELLS	3180.22	51.00	167.00	7.00	18.00	0.10	0.24	102.50	0.00		
10	AMSOX 71	2964.76	58.00	167.00	14.25	32.00	0.20	0.38	122.25	0.00		
6	BEESON	2770.97	55.00	169.00	0.00	0.75	0.00	0.01	115.25	1.00		
12	HARK	2762.64	53.00	162.00	3.50	20.00	0.04	0.24	95.75	0.00		
4	CLARK 63	2675.12	70.00	172.00	12.00	5.25	0.16	0.08	111.75	2.50		
9	CORSOY	2507.58	59.00	168.00	24.00	16.75	0.21	0.20	110.25	0.75		
7	BELI FOUR	2420.48	50.00	166.00	4.00	9.50	0.05	0.14	113.50	1.00		
1	GALLAND	2186.27	62.00	172.00	8.25	9.50	0.10	0.13	106.00	2.00		
8	KASNA	2154.60	73.00	162.00	26.75	12.00	0.26	0.14	89.25	0.50		
2	WOODWORTH	2077.08	69.00	165.00	3.25	6.50	0.04	0.09	116.50	0.00		
3	WILLIAMS	1796.61	68.00	172.00	11.25	17.00	0.13	0.22	106.00			
GRAND MEAN		2587.36	59.50	164.92	11.69	16.15	0.13	0.19	106.60	0.69		
STANDARD ERROR OF A VARIETY MEAN		197.84	0.00	0.00	8.37	11.06	0.08	0.12	1.76	0.17		
COEFFICIENT OF VARIATION		15.29%	0.00%	0.00%	143.23%	136.99%	124.52%	123.54%	3.30%	50.77%		
5% LSD VARIETY MEANS (*****=NS)		569.24	0.00	0.00	*****	*****	*****	*****	5.07	0.50		
CORRELATIONS (+ - PROB=.05 + + - PROB=.01)												
YIELD KG/HA	1.00	-0.61++	-0.50++	0.15	0.27	0.18	0.24	-0.18	-0.08			
DAYS TO FLOWER	-0.61++	1.00	0.50++	0.08	-0.27	0.07	-0.22	0.10	0.26			
DAYS TO MATURITY	-0.50++	0.50++	1.00	-0.26	-0.41++	-0.25	-0.27	0.56++	0.36++			
MODULE NUMBER 1	0.15	0.08	-0.26	1.00	0.61++	0.96++	0.58++	-0.30+	-0.02			
MODULE NUMBER 2	0.27	-0.27	-0.41++	0.25	0.61++	1.00	0.65++	0.92++	-0.23	-0.27		
MODULE WEIGHT 1	0.18	0.07	-0.25	0.96++	0.65++	1.00	0.63++	-0.26	0.02			
MODULE WEIGHT 2	0.24	-0.22	-0.27	0.58++	0.92++	0.63++	1.00	-0.15	-0.24			
PLANT HEIGHT	-0.18	0.10	0.56++	-0.30+	-0.23	-0.26	-0.15	1.00	0.12			
LODGING	-0.08	-0.26	0.36+	-0.02	-0.27	0.02	-0.24	0.12	1.00			
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.45++	-0.54++	-0.15	0.02	0.15	-0.02	0.14	0.10	-0.31+			
PODS PER PLANT	-0.52++	0.64++	0.35+	0.04	-0.24	0.01	-0.12	-0.12	-0.39++			
100 SEED WEIGHT	0.02	-0.44++	0.05	-0.35+	-0.07	-0.04	0.18	-0.19	-0.19			
QUALITY OF SEED,	0.21	-0.29+	0.15	0.00	0.12	0.00	0.18	0.19	-0.24			

TABLE 155 EXPERIMENT 998 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER HARVEST	PLANTS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
11	HODGSON	0.00	179.75	25.50	15.09	1.00	36.1 22.3
5	WELLS	0.00	196.75	30.25	15.67	2.00	41.8 19.5
10	AMSOY 71	0.00	194.75	21.00	15.97	4.00	35.6 20.4
6	BEESON	0.00	202.00	23.00	17.16	2.00	37.1 21.4
12	HARK	0.00	197.25	25.00	16.76	4.00	41.6 20.2
4	CLARK 63	0.00	157.00	40.25	12.30	1.00	35.8 21.7
9	CORSOY	0.00	200.00	29.00	14.41	4.00	40.6 18.0
7	BELI FOUR	0.00	166.75	25.75	15.73	1.00	37.8 20.4
1	CALLAND	0.00	154.50	61.00	18.00	2.00	36.8 21.7
8	KASNA	0.00	161.00	43.50	13.52	1.00	39.8 18.9
2	WOODWORTH	0.00	165.25	41.00	15.96	1.00	38.3 21.2
3	WILLIAMS	0.00	144.50	49.00	14.73	1.00	36.5 21.0
GRAND MEAN							
STANDARD ERROR OF A VARIETY MEAN							
COEFFICIENT OF VARIATION							
5% LSD VARIETY MEANS (*****=NS)							
CORRELATIONS (\downarrow - PROB=.05 \uparrow - PROB=.01)							
YIELD KG/HA							
DAYS TO FLOWER							
DAYS TO MATURITY							
NODULE NUMBER 1							
NODULE NUMBER 2							
NODULE WEIGHT 1							
NODULE WEIGHT 2							
PLANT HEIGHT							
LODGING							
SHATTER							
PLANTS HARVEST							
PODS PER PLANT							
100 SEED WEIGHT							
QUALITY OF SEED							

TABLE 156 EXPERIMENT 60 YEAR 1976

REGION - MESOAMERICA
 SITE - SAN ANDRO S.
 LATITUDE - 24 DEG. 57 MIN. N
 COOPERATOR - JOHN R. THOMPSON
 DATE PLANTED - JUNE 11, 1976
 SOIL PH - 7.6
 FERTILIZER USED (KG/HA) - N 45.0, P 113.0, K 45.0
 AMOUNT OF MOISTURE - 674 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1 WEIGHT	MODULE NUMBER 2 WEIGHT	PLANT HEIGHT	NODULE WEIGHT 2	NODULE WEIGHT 1	LOGGING
4	RANSOM	3970.43	0.00	124.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75
11	COBB	3231.39	0.00	125.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
12	DAVIS	3224.81	0.00	119.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
7	CUTLER 71	3188.99	0.00	89.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25
9	WILLIAMS	2889.64	0.00	91.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
14	FORREST	2654.26	0.00	107.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
15	COLUMBUS	2629.77	0.00	92.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
10	CLARK 63	2431.31	0.00	88.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
5	HILL	2406.82	0.00	97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
3	BRAGG	2252.94	0.00	124.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75
13	IMPROVED PELICAN	2023.41	0.00	131.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.25
16	ESSEX	1934.96	0.00	116.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
8	BOSSIER	1922.16	0.00	117.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75
1	CALLAND	1905.35	0.00	87.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
2	WOODWORTH	1845.77	0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
6	PICKETT 71	1689.71	0.00	113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
304					2512.61	0.00	107.14	0.00	0.00	0.00	0.00	1.81
					167.13	0.00	1.65	0.00	0.00	0.00	0.00	0.22
					13.30%	0.00%	3.08%	0.00%	0.00%	0.00%	0.00%	24.50%
					476.05	0.00	4.70	0.00	0.00	0.00	0.00	0.63
CORRELATIONS												
(+ - PROB=.05 ++ - PROB=.01)												
YIELD	KG/HA	1.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY		0.12	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.03	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79++
LOGGING		0.18	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.28++	-0.27+	-0.27+	-0.27+	-0.27+	-0.27+	-0.27+	-0.27+	-0.38++	-0.36++	
PODS PER PLANT		-0.1.1	0.00	0.41++	0.00	0.00	0.00	0.00	0.00	0.59++	0.46++	
100 SEED WEIGHT		0.48++	-0.28+	-0.28+	-0.28+	-0.28+	-0.28+	-0.28+	-0.28+	-0.22	-0.18	
QUALITY OF SEED		-0.41++	0.00	0.14	0.00	0.00	0.00	0.00	0.00	-0.32+	-0.29+	

TABLE 156 EXPERIMENT 60 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	RANSOM	1.00	227.00	27.00	18.68	2.25	39.7	26.7
11	COBB	1.00	201.25	34.90	14.75	1.50	40.6	23.8
12	DAVIS	1.00	281.00	25.83	18.93	1.25	42.2	23.2
7	CUTLER 71	1.00	236.75	24.90	18.38	1.00	44.9	21.8
9	WILLIAMS	1.00	233.25	23.63	19.33	1.00	43.6	23.5
14	FORREST	1.00	251.75	31.80	12.23	3.00	42.7	22.5
15	COLUMBUS	1.00	211.25	25.45	16.13	1.00	45.7	21.9
10	CLARK 63	1.00	260.50	22.18	17.95	1.50	43.6	23.7
5	HILL	1.00	250.00	26.40	13.65	1.75	43.0	22.7
3	BRAGG	1.00	254.00	31.23	14.58	3.50	43.5	23.5
13	IMPROVED PELICAN	1.00	160.50	109.88	13.18	1.50	44.3	21.8
16	ESSEX	1.00	233.00	49.40	15.33	5.00	44.6	23.7
8	BOSSIER	1.00	166.00	36.10	13.10	2.75	45.0	21.2
1	CALLAND	1.00	237.25	20.20	14.95	4.75	43.8	22.3
2	WOODWORTH	1.00	201.25	21.83	16.70	2.25	42.6	25.3
6	PICKETT 71	1.00	216.00	28.80	13.35	3.25	41.6	23.8
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (** - PROB=.01)								
YIELD KG/HA								
	0.00	0.28+	-0.11	0.48++	-0.41+			
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	-0.27+	-0.41++	-0.28+	-0.14			
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2	0.00	-0.38++	0.59++	-0.22	-0.32+			
	0.00	-0.36++	0.46++	-0.18	-0.29+			
PLANT HEIGHT	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	-0.38++	0.59++	-0.22	-0.32+			
LODGING	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	-0.36++	0.46++	-0.18	-0.29+			
SHATTER	1.00	1.00	-0.42++	0.31+	0.02			
	1.00	-0.42++	1.00	-0.36++	-0.02			
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00			
	0.00	-0.42++	1.00	-0.36++	-0.02			
PODS PER PLANT	0.00	0.00	0.31+	1.00	-0.02			
100 SEED WEIGHT	0.00	0.00	-0.36++	1.00	-0.38++			
QUALITY OF SEED	0.00	0.02	-0.02	-0.38++	1.00			

TABLE 157 EXPERIMENT 38 YEAR 1976

REGION - MESOAMERICA
 SITE - SAN CRISTOBAL
 LATITUDE - 18 DEG. 30 MIN. N
 COOPERATORS - J. DIAZ, M. ROSARIO
 DATE PLANTED - MAY 4, 1976
 SOIL TYPE - CLAY PH 7.8
 NUMBER OF IRRIGATIONS - 3

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
14	FORREST	2128.34	27.25	92.25	88.25	148.00	0.85	2.45	51.75	1.00
15	COLUMBUS	2093.34	22.00	86.50	82.25	154.00	0.27	2.69	67.75	1.00
1	CALLAND	2069.58	22.00	89.25	75.25	162.25	0.31	2.60	64.25	1.25
9	WILLIAMS	1832.87	22.00	78.00	127.25	150.75	0.44	2.33	59.25	1.00
12	DAVIS	1714.93	29.25	95.50	73.00	110.75	0.80	2.00	55.25	1.00
6	PICETT 71	1655.75	29.00	99.00	88.75	69.50	1.20	2.08	34.75	1.00
5	HILL	1608.24	29.50	90.00	70.00	88.50	0.75	1.78	51.25	1.00
10	CLARK 63	1602.40	22.00	82.50	110.75	134.00	0.43	2.46	61.75	1.00
7	CUTLER 71	1549.48	22.00	80.50	124.75	143.50	0.78	2.55	59.50	1.00
13	IMPROVED PELICAN	1238.58	43.50	126.50	60.75	133.50	0.72	1.80	99.75	3.00
4	RANSOM	1153.56	29.00	104.00	76.25	111.75	0.80	1.55	41.75	1.00
2	WOODBORTH	1123.56	22.00	78.75	75.75	82.75	0.34	1.89	48.00	1.00
8	BOSSIER	968.94	29.00	121.25	103.75	117.75	1.05	1.95	51.50	1.00
3	BRAGG	851.34	29.00	114.75	79.50	155.25	0.77	2.30	49.50	1.00
11	COBB	626.79	29.00	119.00	76.00	108.00	0.90	1.90	50.50	1.00
	GRAND MEAN	1481.21	27.10	97.18	87.52	124.65	0.69	2.15	56.43	1.15
	STANDARD ERROR OF A VARIETY MEAN	217.76	2.19	3.52	15.79	19.31	0.17	0.29	1.84	0.12
	COEFFICIENT OF VARIATION	29.40%	16.13%	7.24%	36.09%	30.98%	48.80%	26.69%	6.51%	21.50%
	5% LSD VARIETY MEANS (*****=NS)	621.51	6.24	10.04	*****	55.11	0.48	*****	5.24	0.35
CORRELATIONS (+ - PROB=.05 + + - PROB=.01)										
YIELD	KG/HA	1.00	-0.04	-0.38++	0.11	0.29+	-0.24	0.36++	0.08	0.06
DAYS TO FLOWER		1.00	0.61++	-0.29+	-0.13	0.28+	-0.28+	0.31+	0.71++	
DAYS TO MATURITY		-0.38++	0.61++	1.00	-0.22	-0.04	0.34++	0.28+	0.41++	
NODULE NUMBER 1		0.11	-0.29+	-0.04	1.00	0.20	0.50++	0.20	-0.19	
NODULE NUMBER 2		0.29+	-0.13	-0.04	0.20	1.00	-0.14	0.27+	0.05	
NODULE WEIGHT 1		-0.24	0.28+	0.34++	0.50++	-0.14	1.00	-0.22	-0.03	
NODULE WEIGHT 2		0.36++	-0.28*	0.28+	0.20	0.68++	-0.16	1.00	0.07	
PLANT HEIGHT		0.08	0.31+	0.18	-0.03	0.27+	-0.22	0.07	1.00	
LOGGING		0.06	0.71++	0.41++	-0.19	0.95	-0.03	0.11	0.73++	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.24	-0.09	-0.31+	-0.09	-0.10	-0.19	-0.08	-0.15	-0.20
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.07	-0.34++	-0.12	0.31+	0.18	-0.14	0.08	0.03	-0.10
QUALITY OF SEED		-0.41++	0.35++	0.57++	-0.03	0.04	0.08	-0.16	0.31+	0.36++

TABLE 157 EXPERIMENT 38 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER OR HARVEST	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	FORREST	0.00	307.25	6.00	12.63	1.75	42.3	22.3
15	COLUMBUS	0.00	269.25	6.00	14.93	1.50	44.6	22.2
1	CALLAND	0.00	325.00	6.00	18.40	2.00	43.3	22.3
9	WILLIAMS	0.00	302.00	6.00	17.48	1.75	45.3	22.3
12	DAVIS	0.00	332.75	6.00	13.83	1.00	42.4	22.3
6	PICKETT 71	0.00	265.50	6.00	13.95	1.25	42.6	22.9
5	HILL	0.00	357.00	6.00	14.18	1.50	42.1	22.5
10	CLARK 63	0.00	313.50	6.00	18.00	2.50	46.8	22.6
7	CUTLER 71	0.00	279.09	6.00	19.98	2.00	45.7	22.8
13	IMPROVED PELICAN	0.00	269.75	6.00	14.45	4.00	42.8	23.5
4	RANSOM	0.00	303.00	6.00	15.58	1.00	42.8	22.7
2	WOODWORTH	0.00	305.25	6.00	18.00	2.50	41.5	24.3
8	BOSSIER	0.00	292.75	6.00	16.38	3.75	44.7	23.0
3	BRAGG	0.00	292.75	6.00	15.38	3.75	44.6	23.2
11	COBB	0.00	297.25	6.00	18.23	3.75	41.3	24.7
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSE VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 158 EXPERIMENT 22 YEAR 1976

REGION - MESOAMERICA
 SITE - CAYMANAS
 LATITUDE - 18 DEG. N
 COOPERATOR - HAROLD R. WILSON
 DATE PLANTED - MAY 14, 1976
 SOIL TYPE - SAND 22%, SILT 22%, CLAY 28%, PH 6.8
 AMOUNT OF MOISTURE - 336 MM
 NUMBER OF IRRIGATIONS - 7 (320 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
13	DAVIS	2211.33	32.25	84.75	85.00	102.00	0.00	0.00	40.00	1.00
1	CALLAND	2096.01	29.00	85.50	108.00	87.25	0.00	0.00	43.00	2.25
15	FORREST	2031.61	28.75	81.50	74.50	139.75	0.00	0.00	34.75	1.25
16	COLUMBUS	1922.22	30.50	82.50	108.75	133.75	0.00	0.00	39.75	1.25
5	HILL	1867.52	30.50	81.50	52.75	77.75	0.00	0.00	28.00	1.25
7	CUTLER 71	1828.45	31.00	86.00	50.25	73.00	0.00	0.00	39.25	2.00
9	BOSSIER	1794.13	30.75	92.00	59.50	104.25	0.00	0.00	28.00	1.00
4	BANSOM	1789.45	30.00	81.75	140.75	183.75	0.00	0.00	30.00	1.00
12	COBB	1725.45	31.75	86.00	43.75	109.75	0.00	0.00	37.75	1.00
10	WILLIAMS	1672.17	30.50	82.75	131.50	64.75	0.00	0.00	44.00	1.50
11	CLARK 63	1570.45	30.75	81.00	67.00	66.25	0.00	0.00	37.25	2.50
3	BRAGG	1563.02	29.25	81.00	63.75	115.00	0.00	0.00	33.75	1.25
6	PICKETT 71	1400.83	31.25	93.25	66.75	84.75	0.00	0.00	21.00	1.00
14	IMPROVED PELICAN	1337.62	40.00	111.00	39.25	86.25	0.00	0.00	85.25	2.75
2	WOODWORTH	1070.50	28.75	83.50	41.25	25.50	0.00	0.00	36.75	1.50
8	JUPITER	436.69	62.75	96.00	60.25	66.25	0.00	0.00	66.25	1.00
308										
	GRAND MEAN	1644.84	32.98	86.88	74.56	95.00	0.00	0.00	40.27	1.47
	STANDARD ERROR OF A VARIETY MEAN	145.32	0.59	0.75	25.95	22.01	0.00	0.00	3.21	0.22
	COEFFICIENT OF VARIATION	17.67%	3.58%	1.72%	69.61%	46.34%	0.00%	0.00%	15.94%	29.48%
	5% LSE VARIETY MEANS (*****=NS)	413.92	1.68	2.12	*****	62.70	0.00	0.00	9.14	0.62

(+ - PROB=.05 ++ - PROB=.01)

C O R R E L A T I O N S

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	SHATTER	PLANTS HARVEST
1.00	-0.64++	-0.64++	-0.37++	0.15	0.32++	0.00	0.00	-0.35++	0.03	-0.60++
	-0.64++	1.00	0.54++	-0.12	-0.12	0.00	0.00	-0.60++	-0.07	-0.27+
	-0.37++	0.54++	1.00	-0.22	-0.13	0.00	0.00	0.69++	0.31+	0.23
	-0.15	-0.12	-0.22	1.00	0.41++	0.00	0.00	-0.11	-0.12	-0.22
	0.32++	-0.12	-0.13	0.41++	1.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	-0.35++	0.60++	0.69++	-0.11	-0.12	0.00	0.00	1.00	0.39++	0.06
	0.03	-0.05	0.27+	-0.22	-0.24	0.00	0.00	-0.16	0.04	-0.05
	-0.07	-0.22	-0.21	0.04	0.29+	0.00	0.00	-0.30+	-0.07	-0.07
	0.34++	-0.33++	-0.48++	0.26+	0.18	0.00	0.00	0.31+	0.23	0.23
	0.31++	-0.22	0.41++	-0.14	0.21	0.00	0.00	0.00	-0.46++	0.20
	0.00	-0.59++	-0.59++	0.19	-0.16	0.00	0.00	-0.46++	0.41++	0.06
	0.46++	0.47++	0.47++	-0.11	-0.09	0.00	0.00	0.41++	0.41++	0.06

TABLE 158 EXPERIMENT 22 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.00	215.50	50.65	23.50	2.00	42.4	22.4
1	CALLAND	1.25	227.50	30.92	27.25	2.50	41.5	23.0
15	FORREST	1.50	196.00	46.55	22.25	2.25	42.2	21.9
16	COLUMBUS	1.00	191.25	42.87	24.00	2.00	41.9	24.4
5	HILL	1.50	250.50	36.78	24.50	1.50	42.9	21.9
7	CUTLER 71	1.25	233.75	28.25	28.00	2.25	42.4	23.4
9	BOSSIER	1.00	168.00	43.70	15.75	2.25	43.4	22.9
4	RANSOM	1.00	232.25	33.97	19.50	3.50	42.0	23.5
12	COBB	1.00	216.50	49.82	13.00	2.25	39.9	23.7
10	WILLIAMS	1.25	214.00	25.90	27.50	1.50	42.7	23.2
11	CLARK 63	1.50	194.75	32.40	27.00	2.00	40.5	24.9
3	BRAGG	1.00	246.25	43.65	15.50	2.50	45.5	22.3
6	PICKETT 71	1.25	162.00	36.23	23.00	2.50	42.6	23.4
14	IMPROVED PELICAN	1.00	136.25	83.07	10.50	3.75	42.5	23.5
2	WOODWORTH	2.25	181.50	21.03	26.25	3.00	40.6	24.8
8	JUPITER	1.00	162.75	9.25	9.00	4.00	43.6	19.5
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSE VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)								
309	YIELD KG/HA	-0.07	0.34**	0.31+	0.39++	-0.46++	-0.47++	-0.47++
	DAYS TO FLOWER	-0.22	-0.33++	-0.22	-0.59++	-0.59++	-0.59++	-0.59++
	DAYS TO MATURITY	-0.21	-0.48++	0.41++	-0.14	0.19	-0.11	-0.11
	NUDULE NUMBER 1	0.04	0.26+	-0.26+	-0.14	0.21	-0.16	-0.09
	NUDULE NUMBER 2	-0.29+	0.18	0.00	0.00	0.00	0.00	0.00
	NUDULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NUDULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	-0.16	-0.30+	0.31+	-0.46++	0.41++	-0.46++	-0.46++
	LODGING	0.04	-0.07	0.23	0.20	0.06	0.06	0.06
	SHATTER	1.00	-0.02	-0.20	0.27+	-0.08	-0.08	-0.08
	PLANTS HARVEST	-0.02	1.00	-0.19	0.28+	-0.33++	-0.33++	-0.33++
	PODS PER PLANT	-0.20	-0.19	1.00	-0.31+	0.01	-0.43++	-0.43++
	100 SEED WEIGHT	0.27+	0.28+	-0.31+	1.00	-0.43++	1.00	-0.43++
	QUALITY OF SEED	-0.08	-0.33++	0.01	-0.43++	1.00	-0.43++	-0.43++

TABLE 159

EXPERIMENT 427

YEAR 1976

REGION - MESOAMERICA
 SITE - APATZINGAN
 LATITUDE - 19 DEG. N
 COOPERATOR - BENITO CAZARES ENRIQUEZ
 DATE PLANTED - JULY 6, 1976
 SOIL TYPE - CLAY, PH 8.1
 AMOUNT OF MOISTURE - 554 MM
 NUMBER OF IRRIGATIONS - 2
 LOCAL VARIETY - R.A.D.

COUNTRY - MEXICO
 ELEVATION - 337 M
 LONGITUDE - 102 DEG. 12 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	R.A.D.	3196.47	28.75	80.25	213.25	235.25	1.58	6.03	57.25	1.75
1	JUPITER	2646.36	51.00	104.50	217.25	292.25	6.68	9.25	85.00	1.00
7	DAVIS	2621.36	31.00	89.50	172.75	168.00	1.75	7.00	31.25	1.00
2	HAMPTON 266 A	2604.69	28.25	86.75	211.25	127.50	2.00	5.30	30.00	1.00
5	COBB	2500.50	30.25	88.75	107.00	176.25	1.48	6.32	46.00	1.00
4	IMPROVED PELICAN	2296.29	34.00	90.75	210.50	329.50	0.70	5.18	81.25	1.00
10	COLUMBUS	2094.17	23.00	83.50	99.00	169.00	1.20	5.00	54.25	1.00
8	TRACY	2067.08	24.25	80.00	119.25	192.50	1.53	5.42	37.00	1.00
6	BOSSIER	2000.40	28.00	85.25	133.00	259.25	1.20	7.88	24.25	1.00
14	CALLAND	1904.55	23.00	81.50	110.25	164.00	1.75	5.87	51.00	1.00
9	FORREST	1800.36	28.75	87.00	107.25	200.50	1.00	6.10	27.25	1.25
3	HARDEE	1785.77	32.75	91.00	181.50	298.50	1.65	8.85	33.00	1.00
11	CLARK 63	1735.76	23.00	83.00	102.50	117.50	0.88	2.90	45.00	1.00
13	WILLIAMS	1598.24	26.25	82.50	80.50	152.25	0.65	3.65	42.75	1.25
12	WOODWORTH	670.97	29.00	83.75	50.25	106.75	0.40	2.45	28.25	1.00
310		GRAND MEAN	2101.53	29.42	86.53	141.03	199.27	1.63	5.81	44.90
		STANDARD ERROR OF A VARIETY MEAN	260.67	0.88	1.75	45.62	56.18	0.72	1.24	3.21
		COEFFICIENT OF VARIATION	24.81%	5.99%	4.04%	64.69%	56.38%	88.88%	42.81%	0.15
		5% LSD VARIETY MEANS (*****=NS)	743.96	2.51	4.98	*****	*****	2.07	3.55	28.25%

CORRELATIONS

(+) - PROB=.05 (++) - PROB=.01

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.20	0.07	0.51++	0.39++	0.34++	0.48++	0.43++	0.11	-0.24	0.07	-0.09	0.16	0.16
0.20	1.00	0.83++	0.27+	0.30+	0.59++	0.36++	0.48++	-0.31+	-0.34++	0.21	-0.21	0.21	-0.09
0.07	0.83++	1.00	0.14	0.24	0.38++	0.38++	0.38++	0.33+	0.33+	0.30+	0.30+	0.30+	-0.23
0.51++	0.27+	0.73++	0.73++	0.73++	0.43++	0.61++	0.61++	0.61++	0.61++	0.46++	0.46++	0.46++	0.08
0.39++	0.30+	1.00	0.28+	0.28+	1.00	0.78++	0.78++	0.78++	0.78++	0.46++	0.46++	0.46++	-0.04
0.34++	0.24	0.73++	0.43++	0.43++	0.61++	1.00	1.00	1.00	1.00	0.13	0.13	0.13	-0.05
0.38++	0.28+	0.38++	0.38++	0.38++	0.78++	0.46++	0.46++	0.46++	0.46++	0.11	0.11	0.11	0.11
0.38++	0.30+	0.33+	0.33+	0.33+	0.30+	0.13	0.13	0.13	0.13	0.05	0.05	0.05	0.05
0.43++	0.73++	1.00	0.08	0.08	0.02	-0.04	-0.04	-0.04	-0.04	-0.34++	-0.34++	-0.34++	-0.34++
0.36++	0.30+	0.24	-0.22	-0.22	-0.31+	-0.34++	-0.34++	-0.34++	-0.34++	0.06	0.06	0.06	0.06
0.36++	0.38++	0.24	0.27+	0.27+	0.22	0.22	0.22	0.22	0.22	0.26+	0.26+	0.26+	0.26+
0.48++	0.38++	0.17	0.22	0.22	0.20	0.20	0.20	0.20	0.20	0.17	0.17	0.17	0.17
0.48++	0.46++	0.20	0.20	0.20	0.17	0.17	0.17	0.17	0.17	0.05	0.05	0.05	0.05
0.48++	0.46++	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	-0.32+	-0.32+	-0.32+	-0.32+
0.48++	0.46++	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	-0.49++	-0.49++	-0.49++	-0.49++

TABLE 159

EXPERIMENT 427

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	R-A-D.	2.25	182.25	38.32	16.75	2.00	38.4	23.2
1	JUPITER	1.00	141.75	46.42	16.88	1.25	39.8	24.1
7	DAVIS	2.75	127.50	25.13	16.60	1.50	39.8	24.4
2	HAMPTON 266 A	2.00	118.75	26.75	20.13	2.25	--	--
5	COBB	1.50	114.75	33.57	17.00	2.00	37.7	25.7
4	IMPROVED PELICAN	2.25	115.25	24.17	11.25	2.00	40.2	24.0
10	COLUMBUS	2.75	137.25	26.78	16.30	2.50	40.1	23.5
8	TRACY	4.25	132.50	29.75	19.28	3.50	38.9	21.4
6	BOSSIER	2.75	122.00	26.45	17.73	2.75	39.8	24.5
14	CALLAND	3.75	123.50	35.07	18.28	3.25	40.6	23.4
9	FORREST	2.00	125.50	25.23	14.95	4.25	--	--
3	HARDEE	1.50	91.25	25.12	16.08	2.75	--	--
11	CLARK 63	2.00	119.25	20.20	15.98	2.75	36.9	25.8
13	WILLIAMS	3.00	94.25	22.75	18.33	3.25	--	--
12	WOODWORTH	4.00	109.50	20.55	16.08	3.75	--	--
	GRAND MEAN	2.52	123.68	28.42	16.77	2.65		
	STANDARD ERROR OF A VARIETY MEAN	0.32	9.57	3.86	0.69	0.36		
5%	LSD VARIETY MEANS (**NS=NS)	25.13%	15.48%	27.15%	8.20%	27.37%		
	COEFFICIENT OF VARIATION	0.90	27.33	11.01	1.96	1.04		
	CORRELATIONS	(+ - PROB=.05		(+ - PROB=.05		(+ - PROB=.01)		
	YIELD	KG/HA	-0.32+	0.52++	0.51++	0.13	-0.66++	
	DAYS TO FLOWER		-0.53++	0.05	0.38++	-0.21	-0.43++	
	DAYS TO MATURITY		-0.57++	-0.19	0.17	-0.20	-0.37++	
	NODULE NUMBER 1		-0.22	0.27+	0.22	-0.01	-0.45++	
	NODULE NUMBER 2		-0.22	0.07	0.20	-0.17	-0.34++	
	NODULE WEIGHT 1		-0.31+	0.22	0.42++	0.05	-0.41++	
	NODULE WEIGHT 2		-0.34++	0.06	0.26+	0.06	-0.48++	
	PLANT HEIGHT		-0.24	-0.36++	0.48++	-0.32+	-0.49++	
	LODGING		0.07	0.21	0.15	-0.03	-0.01	
	SHATTER		1.00	0.01	-0.15	0.23	0.40++	
	PLANTS HARVEST		0.01	1.00	0.51++	0.03	-0.25++	
	PODS PER PLANT		-0.15	0.51++	1.00	0.10	-0.36++	
	100 SEED WEIGHT		0.23	0.03	0.10	1.00	0.02	
	QUALITY OF SEED		0.40++	-0.25+	-0.36++	0.02	1.00	

TABLE 160 EXPERIMENT 296 YEAR 1976

REGION - MESOAMERICA
 SITE - APATZINGAN
 LATITUDE - 19 DEG. N
 COOPERATOR - BENITO CAZALES ENRIQUEZ
 DATE PLANTED - JULY 20, 1976
 SOIL TYPE - CLAY, PH 8.1
 AMOUNT OF MOISTURE - 490 MM
 NUMBER OF IRRIGATIONS - 2

COUNTRY - MEXICO
 ELEVATION - 337 M
 LONGITUDE - 102 DEG. 12 MIN. W
 DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
8	JUPITER	3156.88	38.00	95.75	168.00	222.00	1.78	5.68	83.25	1.00
1	CALLAND	2267.12	19.25	61.75	34.75	118.50	0.23	3.95	49.50	1.00
13	DAVIS	2142.09	28.00	63.75	57.00	86.50	0.47	3.90	30.50	1.00
16	COLUMBUS	1969.14	21.00	62.00	44.75	104.00	0.38	3.30	45.50	1.00
4	RANSOM	1960.81	24.50	65.00	40.25	181.25	0.33	4.78	23.00	1.00
12	COBB	1900.38	28.00	63.25	47.25	55.25	0.50	3.13	39.25	1.00
11	CLARK 63	1896.21	20.50	61.25	47.25	22.00	96.00	0.28	2.58	46.50
3	BRAGG	1879.54	23.50	63.25	28.75	187.50	0.28	5.12	29.75	1.00
14	IMPROVED PELICAN	1650.33	38.00	67.00	123.75	90.00	1.20	2.10	80.50	1.00
9	BOSSIER	1612.82	23.75	65.25	34.75	117.25	0.28	2.95	20.75	1.00
5	HILL	1550.31	28.75	61.75	30.00	71.25	0.25	1.63	29.00	1.00
7	CUTLER 71	1473.21	20.25	62.00	27.00	83.75	0.25	2.38	40.00	1.00
6	PICKETT 71	1400.28	24.50	68.25	14.00	61.75	0.20	2.13	17.50	1.00
2	WOODWORTH	1316.93	19.75	60.75	9.50	73.00	0.13	2.65	37.75	1.00
10	WILLIAMS	1288.17	20.50	63.00	34.00	108.50	0.25	3.23	40.75	1.00
15	FORREST	1258.58	25.00	63.75	0.50	87.50	0.05	2.05	23.25	1.00
GRAND MEAN										
		1795.18	25.20	65.48	44.77	109.00	0.43	3.25	39.80	1.00
STANDARD ERROR OF A VARIETY MEAN										
		227.39	0.46	24.45	26.70	36.37	0.24	0.82	2.64	0.00
COEFFICIENT OF VARIATION										
		25.33%	3.67%	7.47%	119.30%	66.74%	110.70%	50.33%	13.26%	
5% LSD VARIETY MEANS (*****NS)										
		647.72	1.32	6.97	76.06	****	0.67	2.33	7.51	0.00
C O R R E L A T I O N S										
		(+ - PROB=.05	++ - PROB=.01)							
YIELD										
		KG/HA	1.00	0.32+	0.10	0.56++	0.57++	0.51++	0.53++	0.46++
		FLOWER	0.32+	1.00	0.21	0.55++	0.11	0.61++	0.05	0.55++
		DAYS TO MATURITY	0.10	0.21	1.00	0.00	0.05	-0.02	0.03	0.00
		NODULE NUMBER 1	0.56++	0.00	1.00	0.50++	0.74++	0.32++	0.12	0.00
		NODULE NUMBER 2	0.57++	0.11	0.05	1.00	0.42++	0.32++	0.22	0.00
		NODULE WEIGHT 1	0.51++	0.61++	-0.02	0.74++	1.00	0.42++	0.64++	0.00
		NODULE WEIGHT 2	0.53++	0.05	0.03	0.32++	0.82++	1.00	0.20	0.00
		PLANT HEIGHT	0.46++	0.55++	-0.12	0.58++	0.22	0.64++	-0.20	0.00
		LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
		SHATTER	-0.29+	-0.34++	-0.10	-0.24	-0.33++	-0.28+	-0.13	0.00
		PLANTS HARVEST	0.24	-0.50	-0.10	-0.06	-0.01	-0.05	-0.05	0.00
		PODS PER PLANT	0.57++	0.43++	0.11	0.55++	0.45++	0.36++	0.51++	0.00
		100 SEED WEIGHT	0.48++	-0.30+	-0.03	0.04	0.35++	0.41++	-0.05	0.00
		QUALITY OF SEED	-0.39++	-0.44++	-0.12	-0.44++	-0.09	-0.45++	-0.04	-0.37++

TABLE 160 EXPERIMENT 296 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	145.50	40.40	17.05	1.00	40.8
1	CALIAND	4.50	156.50	27.42	17.53	3.25	40.7
13	DAVIS	2.25	158.00	24.58	15.03	2.00	41.4
16	COLUMBUS	1.75	154.00	25.70	15.13	2.25	42.0
4	RANSOM	1.25	146.50	24.35	16.38	2.00	37.9
12	COBB	1.00	146.25	23.48	13.43	2.00	37.4
11	CLARK 63	1.25	147.75	23.25	15.98	2.75	24.9
3	BRAGG	1.00	146.75	26.13	15.13	4.50	42.6
14	IMPROVED PELICAN	1.75	127.25	28.88	8.83	1.75	40.3
9	BOSSIER	1.00	134.25	22.68	14.40	1.75	43.9
5	HILL	3.50	188.75	23.83	12.60	2.75	22.9
7	CUTLER 71	4.00	126.00	25.20	14.08	3.00	36.7
6	PICKETT 71	4.00	126.50	22.00	14.85	2.75	24.1
2	WOODWORTH	4.50	135.25	23.13	12.30	2.75	38.5
10	WILLIAMS	2.00	140.00	20.85	16.78	2.50	35.3
15	FORREST	1.50	141.75	23.95	10.80	4.25	26.2
	GRAND MEAN	2.27	145.06	25.36	14.39	2.58	
	STANDARD ERROR OF A VARIETY MEAN	0.24	8.51	2.83	0.82	0.33	
	STANDARD COEFFICIENT OF VARIATION	21.15%	11.73%	22.28%	11.36%	25.34%	
	5% LST VARIETY MEANS (*****=NS)	0.68	24.24	8.05	2.33	0.93	

CORRELATIONS (* - PROB=.05 ** - PROB=.01)

YIELD KG/HA	-0.29*	0.24	0.57++	0.48++	-0.39++
DAYS TO FLOWER	-0.34++	0.30	0.43++	-0.30+	-0.44++
DAYS TO MATURITY	-0.10	-0.10	0.11	-0.03	-0.12
NODULE NUMBER 1	-0.24	-0.06	0.55++	0.04	-0.44++
NODULE NUMBER 2	-0.33++	-0.01	0.45++	0.35++	-0.09
NODULE WEIGHT 1	-0.25	-0.05	0.50++	0.04	-0.45++
NODULE WEIGHT 2	-0.28+	-0.01	0.36++	0.41++	-0.04
PLANT HEIGHT	-0.13	-0.05	0.51++	-0.05	-0.37++
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	-0.01	-0.21	-0.08	0.22
HARVEST	-0.01	1.00	0.02	0.17	0.10
PLANTS PER PLANT	-0.21	0.02	1.00	0.14	-0.25+
100 SEED WEIGHT	-0.08	0.17	0.14	1.00	-0.09
QUALITY OF SEED	0.22	0.10	-0.25+	-0.09	1.00

TABLE 161 EXPERIMENT 297 YEAR 1976

REGION - MESOAMERICA
 SITE - TEPLCATEPEC
 COOPERATOR - BENITO CAZARES ENRIQUEZ
 DATE PLANTED - JULY 24, 1976
 SOIL TYPE - CLAY
 AMOUNT OF MOISTURE - 447 MM
 LOCAL VARIETIES - CAJEME, TROPICANA

COUNTRY - MEXICO

DATE HARVESTED - OCTOBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAY S TO FLOWER	DAY S TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
7	JUPITER	3594.47	39.00	99.00	4.00	3.50	0.18	0.10	69.00	1.00
16	CAJEMB	2719.29	26.00	90.25	2.25	6.75	0.20	0.25	46.75	1.00
15	COLUMBUS	2650.53	21.25	82.75	24.25	25.75	0.23	0.33	40.75	1.00
11	COBB	2646.36	24.50	91.50	2.50	4.75	0.10	0.10	31.50	1.00
14	FORREST	2642.19	24.00	86.75	3.50	8.75	0.03	0.23	35.50	1.00
1	CALLAND	2535.92	18.50	82.50	28.25	5.00	0.30	0.18	40.25	1.00
6	CUTLER 71	2469.24	18.50	78.75	0.00	14.25	0.00	0.30	42.00	1.00
12	DAVIS	2400.48	26.00	91.50	7.50	8.75	0.15	0.23	38.25	1.00
8	BOSSIER	2375.47	22.00	89.00	13.75	4.50	0.13	0.15	28.25	1.00
13	IMPROVED PELICAN	2346.30	39.00	84.75	1.50	4.50	0.15	0.60	73.50	1.00
9	WILLIAMS	2196.27	18.00	79.75	11.50	1.50	0.13	0.05	45.00	1.00
17	TROPICANA	2083.75	42.00	85.00	5.00	3.00	0.25	0.13	81.25	2.50
3	RANSOM	2046.24	17.00	89.50	11.50	1.50	0.20	0.05	25.50	1.00
4	HILL	2029.57	26.00	78.75	2.75	5.50	0.03	0.13	30.25	1.00
10	CLARK 63	1996.23	18.00	80.25	4.50	0.75	0.08	0.08	38.50	1.00
5	PICKETT 71	1810.78	21.00	84.50	6.00	19.50	0.15	0.52	26.50	1.00
2	WOODWORTH	1789.94	18.00	78.75	18.50	13.00	0.23	0.40	35.00	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (* * * * * = NS)										
314										
CORRELATIONS										
(+ - PROB=.05 . . . - PROB=.01)										
YIELD	KG/HA	1.00	0.17	0.50++	0.22	0.16	0.28+	0.14	0.32++	-0.04
DAY S TO FLOWER		0.17	1.00	0.35++	-0.33++	-0.13	0.03	0.02	0.76++	0.51++
DAY S TO MATURITY		0.50++	0.35++	1.00	0.05	-0.05	0.20	-0.03	0.19	-0.02
MODULE NUMBER 1		0.22	-0.33++	0.05	1.00	0.33++	0.66++	0.22	-0.03	-0.04
MODULE NUMBER 2		0.16	-0.13	-0.05	0.33++	1.00	0.24	0.80++	-0.05	-0.06
MODULE WEIGHT 1		0.28+	0.03	0.20	0.66++	0.24	1.00	0.26++	0.24	0.25++
MODULE WEIGHT 2		0.14	0.02	-0.03	0.22	0.80++	0.26+	1.00	0.08	-0.06
PLANT HEIGHT		0.32++	0.76++	0.19	-0.03	-0.05	0.24	0.08	1.00	0.54++
LODGING		-0.04	0.51++	-0.02	-0.04	-0.06	0.25+	-0.06	0.54++	1.00
SHATTER		-0.50++	0.15	-0.48++	-0.18	-0.18	-0.13	-0.19	0.15	0.34++
PLANTS HARVEST		0.33++	0.12	0.28+	0.24	0.13	0.31+	0.13	0.14	0.26++
PODS PER PLANT		0.54++	0.42++	0.44++	-0.21	0.02	0.01	0.12	0.43++	0.00
100 SEED WEIGHT		0.23	-0.62++	0.01	0.34++	0.13	-0.18	0.03	-0.44++	-0.49++
QUALITY OF SEED		-0.44++	-0.64++	-0.45++	-0.20	-0.02	-0.06	-0.06	-0.52++	-0.29+

TABLE 161 EXPERIMENT 297 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OF CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
7	JUPITER	1.00	130.50	48.67	16.75
16	CAJEME	1.50	96.50	42.12	18.35
15	COLUMBUS	1.50	128.00	24.50	17.40
11	COBB	1.50	123.00	27.92	15.48
14	FORREST	1.00	131.50	32.30	15.65
1	CALLAND	1.75	116.50	24.90	20.63
6	CUTLER 71	2.00	104.25	27.22	19.78
12	DAVIS	1.50	143.00	27.05	16.18
8	BOSSIER	1.00	115.75	27.97	18.18
13	IMPROVED PELICAN	1.75	112.00	34.80	12.33
9	WILLIAMS	1.50	113.50	29.55	18.60
17	TROPICANA	2.75	142.50	28.40	10.13
3	RANSOM	1.00	134.75	22.92	18.45
4	HILL	2.00	122.75	23.63	16.50
10	CLARK 63	1.50	109.25	22.70	16.30
5	PICKETT 71	1.50	137.00	24.45	16.68
2	WOODWORTH	2.25	114.25	25.47	17.30
STANDARD ERROR OF A VARIETY MEAN		1.59	122.06	29.09	16.74
COEFFICIENT OF VARIATION		0.35	9.27	3.43	0.93
5% LSD VARIETY MEANS (*****=NS)		44.19%	15.20%	23.61%	11.06%
		*****	26.37	9.77	2.63
CORRELATIONS		(+ - PROB=.05	(+ - PROB=.01)		
YIELD KG/HA	-0.50++	0.33++	0.54++	0.23	-0.44++
DAYS TO FLOWER	0.15	0.12	0.42++	-0.62++	-0.64++
DAYS TO MATURITY	-0.48++	0.28+	0.44++	0.01	-0.45++
NODEL NUMBER 1	-0.18	0.24	-0.21	0.34++	0.20
NODEL NUMBER 2	-0.18	0.13	0.02	0.13	-0.02
NODEL WEIGHT 1	-0.13	0.31+	0.01	0.18	-0.05
NODEL WEIGHT 2	-0.19	0.13	0.12	0.03	-0.06
PLANT HEIGHT	0.15	0.14	0.43++	-0.44++	-0.52++
LODGING	0.34++	0.26+	0.00	-0.49++	-0.29+
SHATTER	1.00	-0.17	-0.32++	-0.37++	0.16
PLANTS HARVEST	-0.17	1.00	0.06	-0.05	-0.19
PODS PER PLANT	-0.32++	0.06	1.00	-0.04	-0.45++
100-SEED WEIGHT	-0.37++	-0.05	-0.04	1.00	0.41++
QUALITY OF SEED	0.16	-0.19	-0.45++	0.41++	1.00

TABLE 162 EXPERIMENT 365 YEAR 1976

REGION - MESOAMERICA
 SITE - MANAGUA
 LATITUDE - 12 DEG. 33 MIN. N
 COOPERATOR - MANUEL VANEGRAS

COUNTRY - NICARAGUA
 ELEVATION - 60 M
 LONGITUDE - 86 DEG. 59 MIN. W

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
16	COLUMBUS	2993.52	26.00	90.00	11.00	0.00	0.60	0.00	46.00	1.00
10	WILLIAMS	2907.25	26.00	90.00	11.25	0.00	0.57	0.00	51.25	1.00
13	DAVIS	2906.00	30.00	93.00	10.25	0.00	0.58	0.00	27.50	1.00
11	CLARK 63	2751.38	25.00	90.00	6.25	0.00	0.33	0.00	49.50	1.00
3	BRAGG	2722.21	30.00	93.00	9.00	0.00	0.47	0.00	36.50	1.00
1	CALLAND	2618.44	26.00	90.00	12.75	0.00	0.67	0.00	48.75	1.00
15	FORREST	2528.42	28.00	90.00	12.75	0.00	0.68	0.00	27.50	1.00
4	RANSOM	2461.33	30.00	93.00	9.00	0.00	0.50	0.00	28.75	1.00
6	PICKETT 71	2368.81	30.00	93.00	4.25	0.00	0.28	0.00	19.75	1.00
12	COBB	2252.12	30.00	93.00	0.00	0.00	0.00	0.00	19.50	1.00
7	CUTLER 71	2204.61	25.00	90.00	10.75	0.00	0.55	0.00	45.00	1.00
2	WOODWORTH	2099.17	26.30	90.00	3.75	0.00	0.18	0.00	46.25	1.00
9	BOSSIER	2035.42	26.00	90.00	6.50	0.00	0.38	0.00	22.75	1.00
14	IMPROVED PELICAN	2044.16	40.00	93.00	7.75	0.00	0.40	0.00	83.25	2.25
5	HILL	1962.06	30.00	93.00	7.25	0.00	0.38	0.00	22.75	1.00
8	JUPITER	1171.07	40.00	96.00	6.75	0.00	0.40	0.00	57.50	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSE VARIETY MEANS (**NS=NS)										
CORRELATIONS (+ - PROB=.05 +* - PROB=.01)										
YIELD	KG/HA	1.00	-0.40++	-0.35++	0.27+	0.00	0.27+	0.00	C.07	-0.09
	FLOWER	-0.40++	1.00	0.84++	-0.11	0.00	-0.09	0.00	C.39++	0.58++
DAYS TO MATURITY		-0.35++	0.84++	1.00	-0.19	0.00	-0.16	0.00	-0.02	0.17
NODULE NUMBER 1		0.27+	-0.11	-0.19	1.00	0.00	0.99++	0.00	0.18	0.12
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.27+	-0.09	-0.16	0.99++	0.00	1.00	0.00	0.17	0.10
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
PLANT HEIGHT		0.07	0.39++	-0.02	0.18	0.00	0.17	0.00	1.00	0.60++
LOGGING		-0.09	0.58++	0.17	0.12	0.00	0.10	0.00	C.60++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.52++	-0.21	-0.08	0.17	0.00	0.13	0.00	-0.15	0.09
PODS PER PLANT		0.28*	-0.12	-0.20	0.84++	0.00	0.81++	0.00	0.08	0.16
100 SEED WEIGHT		0.15	-0.53++	-0.16	-0.03	0.00	-0.04	0.00	-0.55++	-0.69++
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	C.00	0.00	0.00	0.00

TABLE 162 EXPERIMENT 365 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
16	COLUMBUS	1.00	132.50	13.50	14.38	0.00
10	WILLIAMS	1.00	163.00	13.75	15.13	0.00
13	DAVIS	1.00	173.50	10.25	14.75	0.00
11	CLARK 63	1.00	178.50	6.25	13.75	0.00
3	BRAGG	1.00	149.00	9.00	13.88	0.00
1	CALLAND	1.00	152.00	12.75	14.85	0.00
15	FORREST	1.00	130.00	12.75	13.63	0.00
4	RANSOM	1.00	152.00	9.00	15.58	0.00
6	PICKETT 71	1.00	142.00	4.25	14.60	0.00
12	COBB	1.00	133.50	10.00	16.68	0.00
7	CUTLER 71	1.00	131.50	10.75	15.80	0.00
2	WOODWORTH	1.00	149.00	3.75	14.28	0.00
9	BOSSIER	1.00	83.00	6.50	15.15	0.00
14	IMPROVED PELICAN	1.00	120.00	10.00	10.18	0.00
5	HILL	1.00	127.50	7.25	13.80	0.00
8	JUPITER	1.00	116.25	5.25	13.83	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG./HA	0.00	0.52++	0.28*	0.15	0.CO
DAYS TO FLOWER	0.00	-0.21	-0.12	-0.53++	0.00	
DAYS TO MATURITY	0.00	-0.08	-0.20	-0.16	0.00	
NODULE NUMBER 1	0.00	-0.17	0.84++	-0.03	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.13	0.81++	-0.04	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	0.09	0.08	-0.55++	0.00	
LODGING	0.00	-0.15	0.16	-0.69++	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.17	0.16	0.00	
PODS PER PLANT	0.00	0.17	1.00	0.07	0.00	
100 SEED WEIGHT	0.00	0.16	0.07	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE 163 EXPERIMNT 364 YEAR 1976

REGION - MESOAMERICA
SITE - POSOLTEGA
LATITUDE - 12 DEG. 33 MIN. N
COOPERATOR - MANUEL VANEGRAS

COUNTRY - NICARAGUA
ELEVATION - 60 M
LONGITUDE - 86 DEG. 59 MIN. W

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	JUPITER	2323.38	31.00	91.75	54.25	239.75	0.62	1.75	67.5C	1.75
1	CALLAND	2249.62	24.00	88.00	45.00	180.25	0.20	1.54	66.00	1.00
16	COLUMBUS	2235.86	26.00	89.25	48.25	170.75	0.34	1.23	54.00	1.00
15	FORREST	2207.52	27.50	89.50	37.00	283.75	0.24	1.78	37.50	1.00
12	COBB	2204.61	27.00	89.75	49.00	195.00	0.35	1.53	30.75	1.00
7	CUTLER 71	2196.27	26.25	89.50	48.00	242.00	0.36	2.53	53.25	1.00
2	WOODWORTH	2123.34	24.00	88.00	37.75	150.50	0.28	1.75	46.75	1.00
3	BRAGG	2088.33	27.50	89.50	45.00	247.25	0.34	1.73	36.75	1.00
5	HILL	2072.50	29.00	90.00	50.50	123.50	0.53	1.03	36.50	1.00
6	BICKETT 71	2060.00	27.00	90.25	51.75	233.00	0.45	1.23	26.75	1.00
9	BOSSIER	2059.16	25.75	89.00	81.50	246.25	0.65	2.20	28.25	1.00
13	DAVIS	2049.16	28.50	90.00	77.50	183.00	0.73	1.78	31.00	1.25
10	WILLIAMS	2023.74	24.75	88.50	66.25	243.00	0.48	2.98	53.50	1.00
14	IMPROVED PELICAN	1987.06	31.00	92.00	33.00	277.00	0.49	1.43	80.25	2.75
11	CLARK 63	1962.06	26.00	89.00	36.00	172.25	0.21	1.68	50.25	1.00
4	RANSOM	1915.80	27.00	90.00	49.00	238.75	0.33	1.55	27.00	1.00
GRAND MEAN										
144.02	0.63	0.42	6.85	29.11	0.12	0.32	1.92	1.17	0.59++	0.59++
13.65%	4.64%	0.95%	27.09%	27.19%	60.17%	36.68%	8.48%	C.11	18.88%	18.88%
STANDARD ERROR OF A VARIETY MEAN										
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (*****=NS)	1.79	1.21	19.53	82.93	*****	*****	*****	*****	*****	*****
CORRELATIONS										
YIELD KG/HA	-0.15	-0.15	-0.07	0.25+	0.06	0.11	0.26+	0.19	-0.05	-0.05
DAYS TO FLOWER	1.00	0.85++	0.85++	-0.05	0.09	0.31+	-0.27+	0.13	0.59++	0.59++
DAYS TO MATURITY	-0.07	0.85++	1.00	-0.06	0.22	0.21	-0.20	0.16	0.55++	0.55++
NODULE NUMBER 1	0.25+	-0.05	-0.06	1.00	0.02	0.55++	0.36++	-0.24	-0.18	-0.24
NODULE NUMBER 2	0.06	0.09	0.22	0.02	1.00	0.07	0.51++	0.11	0.22	0.23
NODULE WEIGHT 1	0.11	0.31+	0.21	0.55++	0.07	1.00	0.29+	-0.04	0.23	-0.04
NODULE WEIGHT 2	0.26+	-0.27+	-0.20	0.36++	0.51++	0.29+	1.00	0.11	-0.09	-0.09
PLANT HEIGHT	0.19	0.13	0.16	-0.24	0.11	-0.04	0.11	1.00	0.59++	0.59++
LOGGING	-0.05	0.59++	0.55++	-0.18	0.22	0.23	-0.09	0.59++	1.00	0.59++
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.09	-0.15	-0.26+	0.05	-0.39++	0.10	-0.03	-0.06	-0.23	-0.23
PODS PER PLANT	0.16	0.34++	0.37++	-0.21	0.22	0.08	0.4	0.82++	0.75++	0.75++
100 SEED WEIGHT	0.44++	-0.37++	-0.23	0.45++	0.14	0.03	0.34++	-0.12	-0.36++	-0.36++
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 163

EXPERIMENT 364

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	JUPITER	0.00	243.25	36.83	15.86	0.00
1	CALLAND	0.00	276.75	29.83	17.40	0.00
16	COLUMBUS	0.00	240.00	23.55	15.20	0.00
15	FORREST	0.00	248.00	19.60	13.40	0.00
12	COBB	0.00	227.00	21.55	17.63	0.00
7	CUTLER 71	0.00	225.25	24.50	17.35	0.00
2	WOODWORTH	0.00	264.25	20.90	14.03	0.00
3	BRAGG	0.00	255.00	18.08	14.40	0.00
5	HILL	0.00	280.25	17.93	13.54	0.00
6	PICKETT 71	0.00	231.50	17.18	16.93	0.00
9	BOSSIER	0.00	189.00	15.93	17.33	0.00
13	DAVIS	0.00	306.00	16.65	14.51	0.00
10	WILLIAMS	0.00	256.75	23.83	16.05	0.00
14	IMPROVED PELICAN	0.00	202.50	42.85	11.93	0.00
11	CLARK 63	0.00	275.50	20.93	13.45	0.00
4	RANSOM	0.00	246.00	17.45	14.79	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.09	0.16	0.44++	0.00
DAYS TO FLOWER		0.00	-0.15	0.34++	-0.37++	0.00
DAYS TO MATURITY		0.00	-0.26+	0.37++	-0.23	0.00
NODULE NUMBER 1		0.00	0.05	-0.21	0.45++	0.00
NODULE NUMBER 2		0.00	-0.39++	0.22	0.14	0.00
NODULE WEIGHT 1		0.00	0.10	0.08	0.03	0.00
NODULE WEIGHT 2		0.00	-0.03	0.33++	0.04	0.00
PLANT HEIGHT		0.00	-0.06	0.82++	-0.12	0.00
LODGING		0.00	-0.23	0.75++	-0.36++	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	-0.17	-0.23	0.00
PODS PER PLANT		0.00	-0.17	1.00	-0.10	0.00
100 SEED WEIGHT		0.00	-0.23	-0.10	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	1.00	

TABLE 164 EXPERIMENT 40 YEAR 1976

REGION - MESOAMERICA

SITE - ISABELA

LATITUDE - 18 DEG. 28 MIN. N

COOPERATOR - E. H. PASCHAL

DATE PLANTED - JULY 6, 1976

SOIL TYPE - CLAY

FERTILIZER USED (KG/HA) - P 65.0

AMOUNT OF MOISTURE - 394 MM

NUMBER OF IRRIGATIONS - 1 (25 MM)

COUNTRY - PUERTO RICO
ELEVATION - 140 M
LONGITUDE - 67 DEG. W

DATE HARVESTED - OCTOBER, 1976

GRAND MEAN
STANDARD ERROR OF A VARIETY MEAN
COEFFICIENT OF VARIATION
5% LST VARIETY MEANS (*****=NS)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	PROB.=.05	PROB.=.01									
					COBB	JUPITER	DAVIS	BOSSIER	COLUMBUS	FORREST	RANSOM	PICKETT 71	CUTLER 71	WILLIAMS	HILL	IMPROVED PELICAN	CALLAND	BEGG	CLARK 63	WOODWORTH	
12		2546.54	32.00	102.25	224.50	269.50	2.71	3.72	58.00	1.25											
8		2268.93	54.25	111.00	253.00	302.00	3.22	3.35	93.75	2.50											
13		2260.09	34.00	98.25	225.50	279.75	2.97	3.90	59.50	1.00											
9		2170.89	32.00	104.75	326.50	343.25	3.04	3.88	44.75	1.00											
16		2145.51	30.00	89.75	297.00	250.50	3.10	3.99	63.75	1.25											
15		2134.36	30.00	100.00	233.50	263.25	2.74	3.60	49.25	1.00											
4		2097.83	31.00	104.00	286.00	351.25	2.81	3.27	40.50	1.00											
6		2076.68	30.00	98.50	229.00	283.50	2.77	3.60	37.75	1.00											
7		2025.16	26.00	88.50	279.25	236.50	3.43	3.61	56.50	1.25											
10		1987.48	26.00	90.75	238.75	223.75	2.85	3.37	53.00	1.75											
5		1967.87	32.00	99.00	224.75	246.75	2.58	3.54	51.00	1.75											
14		1952.49	42.00	100.00	187.25	227.50	2.87	2.89	91.50	1.25											
1		1927.11	29.00	89.75	232.25	275.50	3.29	4.77	56.25	1.00											
3		1774.47	32.00	102.25	210.75	301.50	2.68	3.84	45.75	1.00											
11		1698.72	28.00	89.75	182.50	160.00	2.58	3.33	49.50	2.00											
2		1572.22	26.00	96.00	180.25	156.25	2.96	3.44	48.25	1.75											
STANDARD ERROR OF A VARIETY MEAN																					
COEFFICIENT OF VARIATION																					
5% LST VARIETY MEANS (*****=NS)																					
CORRELATIONS																					
YIELD KG/HA																					
DAYS TO FLOWER																					
DAYS TO MATURITY																					
NODULE NUMBER 1																					
NODULE NUMBER 2																					
NODULE WEIGHT 1																					
NODULE WEIGHT 2																					
PLANT HEIGHT																					
LOGGING																					
SHATTER																					
PLANTS HARVEST																					
PODS PER PLANT																					
100 SEED WEIGHT																					
QUALITY OF SEED																					

TABLE 164 EXPERIMENT 40 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
12	COBB	0.00	176.00	39.23	16.70	2.50	38.8	24.4
8	JUPITER	0.00	124.75	50.28	16.40	2.25	40.2	24.1
13	DAVIS	0.00	231.00	30.33	14.03	2.00	40.0	23.9
9	BOSSIER	0.00	161.75	32.25	16.90	3.75	45.8	22.3
16	COLUMBUS	0.00	195.50	27.45	16.55	2.25	41.9	23.6
15	FORREST	0.00	184.25	34.93	13.90	3.50	42.9	22.6
4	RANSOM	0.00	196.00	26.38	17.28	3.00	41.2	25.2
6	PICKETT 71	0.00	211.25	28.60	16.48	2.75	41.8	22.8
7	CUTLER 71	0.00	200.50	18.83	18.58	3.25	42.5	23.6
10	WILLIAMS	0.00	200.25	19.15	18.80	3.75	43.4	23.0
5	HILL	0.00	213.75	25.98	14.85	3.25	44.2	22.1
14	IMPROVED PELICAN	0.00	166.25	47.65	11.15	1.00	41.4	22.8
1	CALLAND	0.00	211.25	21.75	18.93	3.50	43.1	21.9
3	BRAGG	0.00	180.25	27.15	16.33	4.00	43.8	22.7
11	CLARK 63	0.00	185.50	17.80	18.15	3.75	43.1	23.7
2	WOODWORTH	0.00	205.50	19.63	17.33	4.75	42.9	23.7
	GRAND MEAN	0.00	190.23	29.21	16.40	3.08		
	STANDARD ERROR OF A VARIETY MEAN	0.00	9.97	2.37	0.37	0.35		
	COEFFICIENT OF VARIATION	0.00%	10.48%	16.20%	4.52%	22.43%		
	5% LST VARIETY MEANS (*****=NS)	0.00	28.39	6.74	1.05	0.98		
	C O R R E L A T I O N S							
			(+ - PROB=.05					
			(+ - PROB=.01)					
	YIELD	KG/HA	0.00	-0.12	0.47++	-0.14	-0.34++	
	DAYS TO FLOWER	0.00	-0.58++	0.79++	-0.43++	-0.50++		
	DAYS TO MATURITY	0.00	-0.49++	0.63++	-0.31+			
	ODULE NUMBER 1	0.00	-0.15	0.01	0.20	-0.02		
	ODULE NUMBER 2	0.00	-0.16	0.30+	-0.17	-0.22		
	ODULE WEIGHT 1	0.00	-0.07	0.01	0.17	-0.05		
	ODULE WEIGHT 2	0.00	-0.13	-0.09	0.10			
	PLANT HEIGHT	0.00	-0.42++	0.67++	-0.37++	-0.51++		
	LODGING	0.00	-0.19	0.09	0.13	-0.04		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS HARVEST	0.00	1.00	-0.57++	-0.10	-0.04		
	PODS PER PLANT	0.00	-0.57++	1.00	-0.60++	-0.58++		
	100 SEED WEIGHT	0.00	0.10	-0.60++	1.00	0.51++		
	QUALITY OF SEED	0.00	0.04	-0.58++	0.51++	1.00		

TABLE 165 EXPERIMENT 373 YEAR 1976

REGION - MESOAMERICA
 SITE - PORT-OF-SPAIN
 LATITUDE - 11 DEG. N
 COOPERATOR - DAVID C. MARTIN
 DATE PLANTED - NOVEMBER 26, 1976
 SOIL TYPE - SAND 42%, SILT 46%, CLAY 12%
 FERTILIZER USED (KG/HA) - N 25.0, P 21.0, K 41.0
 AMOUNT OF MOISTURE - 210 MM
 NUMBER OF IRRIGATIONS - 1

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	Maturity	Days to Maturity	Nodule Number 1	Nodule Number 2	Nodule Weight 1	Nodule Weight 2	Plant Height	Lodging
8	JUPITER	2952.67	33.75	88.75	317.25	458.50	1.05	3.43	62.05	3.00	
1	CALLAND	2696.37	24.50	83.25	137.00	230.50	0.65	2.77	40.70	1.25	
13	DAVIS	2548.43	29.50	86.25	127.75	336.75	0.49	2.27	28.05	1.00	
16	COLUMBUS	2494.25	24.50	83.75	136.25	315.75	0.56	2.56	43.80	1.75	
6	PICKETT 71	2454.66	25.50	77.00	231.25	268.25	0.74	1.68	28.95	1.00	
11	CLARK 63	2273.37	24.00	82.50	138.75	270.25	0.42	2.14	37.80	2.25	
1C	WILLIAMS	2269.62	25.75	77.25	161.25	328.50	0.41	1.68	38.70	1.00	
15	FORREST	2212.94	27.75	76.75	154.00	308.75	0.38	1.74	35.10	2.00	
4	RANSOM	2067.08	26.25	86.00	128.50	271.75	0.37	1.66	28.85	1.00	
12	COBB	2002.48	26.75	81.50	111.75	318.25	0.39	2.09	24.05	1.00	
7	CUTLER 71	1919.13	25.00	82.25	206.75	258.00	0.56	1.99	40.30	2.00	
3	BRAGG	1892.04	25.75	81.25	173.00	331.25	0.44	1.72	32.45	1.00	
14	IMPROVED PELICAN	1794.11	32.50	83.00	211.50	326.00	0.93	2.50	37.05	1.50	
322	WOODWORTH	1558.64	25.50	71.75	120.50	193.50	0.32	1.46	32.60	2.25	
9	BOSSIER	1552.39	24.50	75.25	106.75	279.00	0.25	1.74	23.25	1.00	
5	HILL	1521.14	30.50	73.25	130.00	238.00	0.35	1.66	28.25	1.50	
STANDARD ERROR OF A VARIETY MEAN											
COEFFICIENT OF VARIATION											
5% LSD VARIETY MEANS (*****=NS)											
CORRELATIONS (+ - PROB=.05 + - PROB=.01)											
YIELD KG/HA	1.00	-0.01	0.54++	0.38++	0.32+	0.34++	0.35++	0.63++	0.23		
DAYS TO FLOWER	-0.01	1.00	0.24	0.38++	0.39++	0.37++	0.26+	0.24	0.16		
DAYS TO MATURITY	0.54++	0.24	1.00	0.25++	0.29+	0.24	0.25+	0.46++	0.13		
NODULE NUMBER 1	0.38++	0.38++	0.25+	1.00	0.62++	0.77++	0.56++	0.57++	0.32++		
NODULE NUMBER 2	0.32++	0.39++	0.29+	0.62++	1.00	0.56++	0.74++	0.43++	0.20		
NODULE WEIGHT 1	0.34++	0.37++	0.24	0.77++	0.58++	1.00	0.74++	0.49++	0.21		
NODULE WEIGHT 2	0.35++	0.26+	0.25+	0.56++	0.74++	0.49++	0.49++	0.49++	0.26+		
PLANT HEIGHT	0.63++	0.24	0.46++	0.57++	0.43++	0.49++	0.49++	0.61++	1.00		
LODGING	0.23	0.16	0.13	0.32++	0.20	0.26+	0.26+	0.61++	1.00		
SHATTER	-0.05	-0.07	-0.10	0.06	0.03	0.07	-0.10	-0.19	-0.16		
PLANTS HARVEST	0.36++	0.04	0.10	-0.03	0.09	-0.11	0.13	0.23	0.01		
PODS PER PLANT	0.40++	0.31+	0.26+	0.34++	0.44++	0.37++	0.35++	0.39++	0.03		
100 SEED WEIGHT	0.44++	-0.43++	0.38++	0.13	0.07	0.09	0.14	0.36++	-0.02		
QUALITY OF SEED	-0.17	-0.50++	-0.05	-0.23	-0.37++	-0.23	-0.23	-0.18	-0.11	0.01	

TABLE 165 EXPERIMENT 373 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	1.00	278.75	16.15	21.01	2.00	39.8	26.2
1	CALLAND	1.00	304.00	10.90	23.68	3.50	43.0	20.4
13	DAVIS	1.00	303.75	12.78	20.41	2.25	42.6	22.5
16	COLUMBUS	1.00	277.25	14.28	21.82	2.75	44.6	21.1
6	PICKETT 71	1.50	244.00	13.75	20.21	2.25	43.4	22.7
11	CLARK 63	1.00	281.75	11.60	19.55	2.75	42.3	21.7
10	WILLIAMS	1.00	290.25	12.20	22.51	2.50	43.5	22.8
15	FORREST	1.00	262.00	15.63	17.70	1.75	41.9	22.6
4	RANSOM	1.00	261.25	11.05	19.88	2.75	42.1	23.9
12	COBB	1.25	249.25	14.40	19.67	2.00	40.9	22.5
7	CUTLER 71	1.00	223.75	10.65	23.09	3.25	44.2	21.5
3	BRAGG	1.00	283.50	12.58	22.42	2.50	43.0	22.4
14	IMPROVED PELICAN	1.00	230.75	17.47	16.51	1.50	45.1	22.0
2	WOODWORTH	1.00	270.00	9.57	18.82	3.00	42.4	22.4
9	BOSSIER	1.00	239.25	12.40	19.11	2.75	44.5	22.0
5	HILL	1.00	303.00	9.72	17.52	2.75	41.0	22.0
GRAND MEAN		1.05	268.91	12.82	20.24	2.52		
STANDARD ERROR OF A VARIETY MEAN		0.10	15.52	1.57	0.47	0.24		
COEFFICIENT OF VARIATION		18.58%	11.54%	24.44%	4.66%	18.93%		
5% LSD VARIETY MEANS (***(****=NS))		0.28	44.21	4.46	1.34	0.68		
CORRELATIONS (* = PROB=.05 ** = PROB=.01)								
YIELD	KG/HA	-0.05	0.36++	0.40++	0.44++	-0.17		
DAYS TO FLOWER		0.04	0.31+	0.43++	0.50++			
DAYS TO MATURITY		-0.10	0.10	0.26+	0.38++	-0.05		
NODULE NUMBER 1		-0.06	-0.03	0.34++	0.13	-0.23		
NODULE NUMBER 2		0.03	0.09	0.44++	0.07	-0.37++		
NODULE WEIGHT 1		0.07	-0.11	0.37++	0.09	-0.23		
NODULE WEIGHT 2		-0.10	0.13	0.35++	0.14	-0.18		
PLANT HEIGHT		-0.19	0.23	0.39++	0.36++	-0.11		
LODGING		-0.16	0.01	0.03	-0.02	0.01		
SHATTER		1.00	-0.11	0.10	-0.01	-0.06		
PLANTS HARVEST		-0.11	1.00	-0.03	0.20	0.02		
PODS PER PLANT		0.10	-0.03	1.00	-0.11	-0.55++		
100 SEED WEIGHT		-0.01	0.20	-0.11	1.00	0.42++		
QUALITY OF SEED		-0.06	0.02	-0.55++	0.42++	1.00		

TABLE 166 EXPERIMENT 48 YEAR 1976

REGION - MIDDLE EAST
 SITE - DEZFUL
 LATITUDE - 32 DEG. 16 MIN. N.
 COOPERATORS - E.K. VAUGHAN, N. HODJATI
 DATE PLANTED - MAY 26, 1976
 SOIL TYPE - SILTY CLAY, PH 7.66
 FERTILIZER USED (KG/HA) - N 13.5, P 7.2
 AMOUNT OF MOISTURE - 1200 MM
 NUMBER OF IRRIGATIONS - 12 (1200 MM)

COUNTRY - IRAN
 ELEVATION - 81 M
 LONGITUDE - 48 DEG. 25 MIN. E
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAKS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
4	RANSOM	2719.32	80.00	155.00	35.50	78.25	0.94	1.97	70.75	1.00
8	BOSSIER	2682.66	80.00	159.00	22.50	19.00	0.26	0.57	92.25	1.00
1	CALLAND	2192.78	31.00	127.00	28.50	87.50	0.77	3.24	79.25	1.00
12	DAVIS	2179.45	80.00	146.00	32.50	56.75	0.76	1.99	81.50	1.00
16	ESSEX	2141.13	56.00	146.50	23.50	64.75	0.76	1.81	44.25	1.00
3	BRAGG	2109.47	80.00	155.00	18.75	41.00	0.31	0.99	91.50	1.00
14	FORREST	1979.50	56.00	139.00	39.25	29.25	1.03	1.09	61.00	1.00
15	COLUMBUS	1969.51	38.00	127.00	12.00	39.25	0.30	1.34	67.25	1.00
6	PICKETT 71	1926.18	85.00	159.00	17.50	28.25	0.42	0.91	65.00	1.00
10	CLARK 63	1896.19	34.00	119.00	13.75	104.00	0.38	2.28	74.00	1.00
13	IMPROVED PELICAN	1872.86	95.00	159.00	10.25	1.50	0.20	0.09	161.25	1.00
5	HILL	1776.22	62.00	127.00	4.25	43.50	0.08	1.01	48.75	1.00
7	CUTLER 71	1612.93	34.00	127.00	26.25	80.00	0.74	2.75	70.25	1.00
2	WOODWORTH	1569.61	34.00	116.00	24.50	79.25	0.76	2.67	74.75	1.00
9	WILLIAMS	1562.94	31.00	116.00	27.50	92.25	0.72	2.51	73.75	1.00
11	COBB	1196.37	80.00	166.00	10.75	22.75	0.37	0.72	78.00	1.00
GRAND MEAN										
		1961.70	59.75	140.22	21.70	54.20	0.55	1.62	77.09	1.00
		156.44	0.00	0.82	9.96	28.64	0.29	0.66	3.78	0.00
		15.95%	0.00%	1.17%	91.76%	105.69%	106.98%	80.93%	9.80%	0.00
		445.61	0.00	2.33	*****	*****	*****	1.87	10.77	0.00

CORRELATIONS

(+ - PROB=.05 ++ - PROB=.01)

YIELD	KG/HA	1.00	0.25+	0.26+	0.13	-0.03	0.06	-0.04	0.01	0.00
DAYS TO FLOWER		0.25+	1.00	0.92++	-0.07	-0.37++	-0.15	-0.46++	0.42++	0.00
DAYS TO MATURITY		0.26+	0.92++	1.00	-C.02	-0.36++	-0.09	-0.43++	0.34++	0.00
MODULE NUMBER 1		0.13	-0.07	-0.02	1.00	0.22	0.92++	0.35++	-0.08	0.00
MODULE NUMBER 2		-0.03	-0.37++	-0.36++	0.22	1.00	0.25+	0.93++	-0.16	0.00
NODULE WEIGHT 1		0.06	-0.15	-0.09	0.92++	0.25+	1.00	0.41++	-0.17	0.00
NODULE WEIGHT 2		-0.04	-0.46++	-0.43++	0.35++	0.93++	0.41++	1.00	-0.19	0.00
PLANT HEIGHT		0.01	0.42++	0.34++	-0.08	-0.16	-0.17	-0.19	1.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		-0.05	0.41++	0.29+	-0.13	-0.23	-0.14	-0.26+	0.84++	0.00
PLANTS HARVEST		0.20	0.06	0.12	-0.04	-0.05	0.00	-0.04	-0.06	0.00
PODS PER PLANT		0.29+	0.54++	0.47++	-0.12	-0.24	-0.16	-0.30+	0.36++	0.00
100 SEED WEIGHT		0.14	-0.40++	-0.18	0.18	0.37++	0.21	0.48++	-0.13	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 166 EXPERIMENT 48 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4 RANSOM	1.00	77.50	64.75	18.85	0.00	
8 BOSSLER	1.00	69.50	83.25	15.83	0.00	
1 CALLAND	1.00	65.50	53.25	21.08	0.00	
12 DAVIS	1.00	71.00	92.50	14.23	0.00	
16 ESSEX	1.00	98.50	91.25	13.48	0.00	
3 BRAGG	1.00	81.50	119.50	14.75	0.00	
14 FORREST	1.00	57.00	95.00	12.30	0.00	
15 COLUMBUS	1.00	65.00	68.50	16.05	0.00	
6 PICKETT 71	1.00	64.25	64.00	13.65	0.00	
10 CLARK 63	1.00	62.50	51.25	16.10	0.00	
13 IMPROVED PELICAN	2.00	70.25	117.50	11.63	0.00	
5 HILL	1.00	61.00	69.75	12.15	0.00	
7 CUTLER 71	1.00	62.00	55.00	19.60	0.00	
2 WOODWORTH	1.00	75.50	49.25	15.18	0.00	
9 WILLIAMS	1.00	79.50	58.50	15.18	0.00	
11 COBB	1.00	65.00	59.50	16.58	0.00	
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD KG/HA	-0.05	0.20	0.29+	0.14	0.00	
DAYS TO FLOWER	0.41++	0.06	0.54++	-0.40++	0.00	
DAYS TO MATURITY	0.29+	0.12	0.47++	-0.18	0.00	
NODULE NUMBER 1	-0.13	-0.04	-0.12	0.18	0.00	
NODULE NUMBER 2	-0.23	-0.05	-0.24	0.37++	0.00	
NODULE WEIGHT 1	-0.14	0.00	-0.16	0.21	0.00	
NODULE WEIGHT 2	-0.26+	-0.04	-0.30+	0.48++	0.00	
PLANT HEIGHT	0.84++	-0.06	0.36++	-0.13	0.00	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	-0.00	0.43++	-0.36++	0.00	
PLANTS HARVEST	-0.00	1.00	0.25+	-0.07	0.00	
PODS PER PLANT	0.43++	0.25+	1.00	-0.45++	0.00	
100 SEED WEIGHT	-0.36++	-0.07	-0.45++	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE 167 EXPERIMENT 87 YEAR 1976

REGION - MIDDLE EAST
 SITE - GORGAN
 LATITUDE - 36 DEG. 51 MIN. N. ELEVATION - 120 M.
 COOPERATORS - H. POURDAVAI, A. SHARIATI, S. GHOMY
 DATE PLANTED - MAY 2, 1976 LONGITUDE - 54 DEG. 28 MIN. E.
 SOIL TYPE - CLAY, PH 7.7 DATE HARVESTED - AUGUST, 1976
 FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0
 AMOUNT OF MOISTURE - 110 MM
 NUMBER OF IRRIGATIONS - 5

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S	
											(+ - PROB=.05	(+ - PROB=.01)
8	WELLS	5491.51	0.00	0.00	35.75	107.25	0.19	2.15	45.75	0.00		
11	ESSEX	5277.72	0.00	0.00	29.75	119.25	0.17	1.40	57.50	0.00		
12	WOODWORTH	5216.04	0.00	0.00	43.00	83.25	0.19	1.57	67.00	0.00		
13	AMSOY 71	4868.47	0.00	0.00	56.25	129.25	0.34	2.50	47.00	0.00		
1	CALLAND	4648.85	0.00	0.00	37.25	112.25	0.21	3.09	67.00	0.00		
5	WILLIAMS	4600.50	0.00	0.00	65.50	145.50	0.34	2.22	59.00	0.00		
9	BEESON	4479.65	0.00	0.00	32.75	72.25	0.23	2.52	53.00	0.00		
12	CORSOY	4426.72	0.00	0.00	49.25	75.75	0.17	1.10	41.25	0.00		
10	COLUMBUS	4310.45	0.00	0.00	44.75	101.75	0.16	1.82	39.00	0.00		
14	HODGSON	4231.68	0.00	0.00	29.25	97.25	0.20	2.04	59.75	0.00		
4	CUTLER 71	4109.15	0.00	0.00	53.75	123.25	0.23	1.74	88.75	0.00		
6	CLARK 63	3904.11	0.00	0.00	44.00	160.75	0.22	2.38	89.25	0.00		
16	STEELE	3251.90	0.00	0.00	58.75	111.25	0.54	2.54	70.50	0.00		
15	HARK	2522.59	0.00	0.00	51.75	148.00	0.25	1.58	87.00	0.00		
7	FORREST	2178.35	0.00	0.00	42.25	44.50	0.10	0.42	81.25	0.00		
3	HILL	2045.83	0.00	0.00	86.75	31.25	1.25	0.47	71.75	0.00		
GRAND MEAN		4097.72	0.00	0.00	47.55	103.92	0.30	1.85	64.05	0.00		
STANDARD ERROR OF A VARIETY MEAN		321.70	0.00	0.00	16.92	31.00	0.21	0.87	3.29	0.00		
COEFFICIENT OF VARIATION		15.70%	0.000%	0.00%	71.16%	59.66%	143.82%	94.56%	10.26%	9.36%		
5% LST VARIETY MEANS (*****=NS)		916.33	0.00	0.00	*****	*****	*****	*****	*****	*****		
C O R R E L A T I O N S												
YIELD	KG/HA	1.00	0.00	0.00	-0.24	0.25+	-0.32++	0.23	-0.41++	0.00		
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
DAYS TO MATURITY		0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 1		-0.24	0.00	0.00	1.00	0.41++	0.77++	0.29+	0.22	0.22		
NODULE NUMBER 2		0.25+	0.00	0.00	0.41++	1.00	0.10	0.10	0.74++	0.22		
NODULE WEIGHT 1		-0.32++	0.00	0.00	0.77++	0.10	1.00	0.06	0.14	0.14		
NODULE WEIGHT 2		0.23	0.00	0.00	0.29+	0.74++	0.06	1.00	0.02	0.02		
PLANT HEIGHT		-0.41++	0.00	0.00	0.22	0.22	0.14	0.02	1.00	0.00		
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.20	0.00	0.00	0.15	0.19	0.20	0.30+	-0.24	0.00		
PODS PER PLANT		-0.06	0.00	0.00	0.18	0.18	0.11	0.16	0.32++	0.00		
100 SEED WEIGHT		0.51++	0.00	0.00	-0.27+	0.04	-0.37++	0.11	-0.47++	0.00		
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

TABLE 167 EXPERIMENT 87 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	WELLS	0.00	171.00	34.50	14.45	0.00
11	ESSEX	0.00	172.25	27.75	14.63	0.00
12	WOODWORTH	0.00	148.50	37.00	13.78	0.00
13	AMSOY 71	0.00	150.00	32.25	14.43	0.00
1	CALLAND	0.00	167.75	24.50	13.73	0.00
5	WILLIAMS	0.00	175.25	27.75	13.95	0.00
9	BEESON	0.00	179.50	25.43	0.00	
12	CORSOY	0.00	157.25	30.75	15.85	0.00
10	COLUMBUS	0.00	182.75	27.00	16.20	0.00
14	HODGSON	0.00	195.75	29.00	17.25	0.00
4	CUTLER 71	0.00	154.50	39.75	14.80	0.00
6	CLARK 63	0.00	163.75	41.00	13.43	0.00
16	STEELE	0.00	169.00	40.25	12.58	0.00
15	HARK	0.00	120.25	40.75	11.75	0.00
7	FORREST	0.00	157.00	25.00	13.23	0.00
3	HILL	0.00	160.75	34.75	10.68	0.00
GRAND MEAN						
		0.00	164.08	32.36	14.13	0.00
STANDARD ERROR OF A VARIETY MEAN						
		0.00	10.99	4.29	0.58	0.00
5% LST VARIETY COEFFICIENT OF VARIATION (*****=NS)						
		0.00%	13.40%	26.52%	8.15%	0.00%
		0.00	31.31	12.22	1.64	0.00
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
	YIELD	KG/HA	0.00	-0.20	-0.06	0.51**
	DAYS TO FLOWER	0.00	0.30	0.00	0.00	0.00
	DAYS TO MATURITY	0.00	0.00	0.00	0.00	0.00
	NODULE NUMBER 1	0.00	0.15	0.18	-0.27*	0.00
	NODULE NUMBER 2	0.00	0.19	0.18	0.04	0.00
	NODULE WEIGHT 1	0.00	0.20	0.11	-0.37**	0.00
	NODULE WEIGHT 2	0.00	0.30+	0.16	0.11	0.00
	PLANT HEIGHT	0.00	-0.24	0.32**	-0.47**	0.00
	LODGING	0.00	0.00	0.00	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.24	0.33**	0.00
	PODS PER PLANT	0.00	-0.24	1.00	-0.12	0.00
	100 SEED WEIGHT	0.00	0.33**	-0.12	1.00	0.00
	QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 168 EXPERIMENT 83 YEAR 1976

REGION - MIDDLE EAST
 SITE - KARAJ
 LATITUDE - 37 DEG. 47 MIN. N
 COOPERATORS - M.C. AMIRSHAHI, B.Y. SAMADI
 DATE PLANTED - MAY 17, 1976
 SOIL TYPE - SILT PH 7.5 - 8.0
 AMOUNT OF MOISTURE - 20 MM
 NUMBER OF IRRIGATIONS - 12
 SUBSTITUTE VARIETIES - LINDARIN, HAROSOY

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	PROB=.01										
					WILLIAMS	HILL	BEESON	CALLAND	CLARK 63	FORREST	AMSOY 71	STEELE	HAROSOY	CUTLER 71	WELLS	WOODWORTH	CORSOY	LINDARIN	HARK	HODGSON	
5		1835.78	55.75	138.75	106.50	185.00	0.00	0.00	0.00	0.00	0.00	57.98	1.25								
3		1667.00	77.00	148.50	48.50	147.00	0.00	0.00	0.00	0.00	0.00	75.45	1.00								
9		1645.75	51.25	138.00	94.50	206.00	0.00	0.00	0.00	0.00	0.00	53.10									
1		1583.65	55.00	140.75	115.75	341.50	0.00	0.00	0.00	0.00	0.00	52.05	1.50								
6		1566.98	56.00	140.00	78.75	104.75	0.00	0.00	0.00	0.00	0.00	60.95	1.50								
7		1546.14	75.50	148.75	103.75	186.75	0.00	0.00	0.00	0.00	0.00	89.82	1.75								
13		1524.89	51.25	138.75	104.75	165.50	0.00	0.00	0.00	0.00	0.00	48.70	1.50								
16		1452.37	46.75	130.50	149.50	160.00	0.00	0.00	0.00	0.00	0.00	41.98	1.00								
11		1389.86	50.00	136.75	130.25	294.25	0.00	0.00	0.00	0.00	0.00	49.80	1.25								
4		1338.18	58.00	140.00	104.00	220.75	0.00	0.00	0.00	0.00	0.00	60.45	1.50								
8		1265.25	49.50	139.75	116.25	232.25	0.00	0.00	0.00	0.00	0.00	43.85	1.50								
2		1264.84	54.25	139.00	75.50	160.50	0.00	0.00	0.00	0.00	0.00	53.58	1.50								
12		1089.80	50.50	140.50	111.50	114.25	0.00	0.00	0.00	0.00	0.00	40.03	1.25								
10		958.52	51.00	138.00	84.75	139.75	0.00	0.00	0.00	0.00	0.00	46.53	1.00								
328		941.85	49.75	137.75	134.75	299.75	0.00	0.00	0.00	0.00	0.00	45.70	1.50								
15		873.09	45.25	140.75	111.25	120.75	0.00	0.00	0.00	0.00	0.00	40.90	1.25								
14		1371.50	54.80	139.78	104.39	192.42	0.00	0.00	0.00	0.00	0.00	53.80	1.33								
	GRAND MEAN		152.09	1.03	2.32%	17.69	49.74	0.00	0.00	0.00	0.00	0.00	2.64	0.24							
	STANDARD ERROR OF A VARIETY MEAN		22.18%	3.75%	3.32%	33.88%	51.70%	0.00%	0.00%	0.00	0.00	0.00	9.8%	36.07%							
	COEFFICIENT OF VARIATION		433.22	2.92	6.62	50.38	141.68	0.00	0.00	0.00	0.00	0.00	7.51	*****							
	5% LSD VARIETY MEANS (****=NS)																				
	CORRELATIONS												{* - PROB=.05	** - PROB=.01							
	YIELD	KG/HA	1.00	0.30+	0.04	0.04	0.21	0.00	0.00	0.00	0.00	0.00	0.55**	0.24							
	DAYS TO FLOWER		0.30+	1.00	0.57++	-0.36++	-0.08	0.00	0.00	0.00	0.00	0.00	0.84++	0.07							
	DAYS TO MATURITY		0.04	0.57++	1.00	-0.31+	-0.09	0.00	0.00	0.00	0.00	0.00	0.43++	0.08							
	NODULE NUMBER 1		0.04	-0.36++	-0.31+	1.00	0.24	0.00	0.00	0.00	0.00	0.00	-0.23	-0.03							
	NODULE NUMBER 2		0.21	-0.08	-0.09	0.24	1.00	0.00	0.00	0.00	0.00	0.00	-0.21	-0.01							
	NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
	NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00						
	PLANT HEIGHT		0.55++	0.84++	0.43++	-0.23	0.01	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00						
	LODGING		0.24	0.07	0.08	-0.03	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
	SHATTER		-0.52++	-0.43++	-0.29+	0.15	-0.05	0.00	0.00	0.00	0.00	0.00	-0.44++	-0.00							
	PLANTS HARVEST		0.32+	0.20	0.11	-0.31+	-0.19	0.00	0.00	0.00	0.00	0.00	-0.20	-0.09							
	PODS PER PLANT		0.25+	0.50++	0.32++	0.01	0.11	0.00	0.00	0.00	0.00	0.00	-0.60++	0.18							
	100 SEED WEIGHT		0.31+	-0.50++	-0.21	0.22	0.19	0.00	0.00	0.00	0.00	0.00	-0.30*	-0.13							
	QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

TABLE 168

EXPERIMENT 83

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	WILLIAMS	1.00	200.00	15.73	17.45
3	HILL	1.00	200.00	23.05	14.95
9	BEESON	1.75	199.75	14.40	19.08
1	CALLAND	1.75	198.75	13.08	17.70
6	CLARK 63	1.25	199.00	16.48	16.30
7	FORREST	1.25	199.25	24.33	0.00
13	AMSOY 71	1.75	200.00	13.88	16.53
16	STEELE	2.00	198.50	12.18	18.30
11	HAROSOY	2.00	196.50	16.63	16.43
4	CUTLER 71	1.50	200.00	16.95	15.75
8	WELLS	1.50	191.50	13.90	15.33
2	WOODWORTH	2.50	197.00	15.03	15.50
12	CORSOY	2.25	196.00	13.93	16.13
10	LINDARIN	3.25	192.25	15.80	15.83
15	HARK	2.25	126.50	21.83	0.00
14	HODGSON	2.00	195.25	14.50	17.73
GRAND MEAN					
STANDARD ERROR OF A VARIETY MEAN					
COEFFICIENT OF VARIATION					
5% LSD VARIETY MEANS (**=***=NS)					
CORRELATIONS					
(* - PROB=.05 ** - PROB=.01)					
YIELD	KG/HA	-0.52++	0.32+	0.25+	0.31+
DAYS TO FLOWER	-0.43++	0.20	0.50++	-0.50++	0.00
DAYS TO MATURITY	-0.29+	0.11	0.32++	-0.21	0.00
NODULE NUMBER 1	0.15	-0.31+	0.01	0.22	0.00
NODULE NUMBER 2	-0.05	-0.19	0.11	0.19	0.00
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT	-0.44++	0.20	0.60++	-0.30+	0.00
LODGING	-0.00	-0.09	0.18	-0.13	0.00
SHATTER	1.00	-0.27+	-0.27+	-0.20	0.00
PLANTS HARVEST	-0.27+	1.00	-0.27+	0.04	0.00
PODS PER PLANT	-0.20	-0.27+	1.00	-0.20	0.00
100 SEED WEIGHT	-0.02	0.04	-0.20	1.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00

TABLE 169 EXPERIMENT 108 YEAR 1976

REGION - MIDDLE EAST
 SITE - REZAIYEH
 LATITUDE - 37 DEG. N
 COOPERATOR - J. CARAPETIAN

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
					BEESON	1963-48	54.00	145.75	47.75	41.00
1	AMSOY 71	1877.54	54.00	143.75	40.75	42.75	0.13	0.48	65.57	1.25
2	CUTLER 71	1726.76	83.00	156.50	95.25	113.25	0.61	2.10	78.68	1.25
3	WOODWORTH	1672.63	70.00	141.00	57.25	40.00	0.27	1.05	54.48	1.00
4	COLUMBUS	1607.07	83.00	164.00	66.50	78.25	0.70	1.34	68.77	1.00
5	STEELE	1605.74	52.00	135.50	57.75	76.75	0.24	0.98	43.48	1.00
6	WELLS	1552.69	54.00	155.50	32.00	45.50	0.10	0.43	60.05	1.25
7	CALLAND	1389.24	70.00	151.75	83.75	85.25	0.40	1.27	54.00	1.00
8	WILLIAMS	1359.81	54.00	141.75	46.75	54.00	0.16	0.44	50.50	1.00
9	HARK	1342.19	70.00	153.00	52.50	55.75	0.17	0.86	57.98	1.00
10	CLARK 63	1249.21	54.00	140.75	43.75	71.50	0.09	0.43	37.23	1.00
11	CORSOY	1167.11	54.00	121.00	48.50	49.00	0.16	0.45	37.30	1.00
12	SHIFT	1156.61	52.00	139.25	59.00	61.75	0.16	0.46	39.53	1.00
13	HODGSON	1087.13	52.00	114.00	54.25	39.25	0.16	0.44	31.00	1.00
14	ALTONA	663.01	103.00	193.00	36.75	29.75	0.31	0.46	67.70	1.00
15	FORREST	GRAND MEAN	1465.12	63.31	146.70	53.59	58.42	0.25	0.76	53.44
16	STANDARD ERROR OF A VARIETY MEAN	268.89	0.00	2.97	10.37	15.63	0.11	0.35	6.20	0.11
17	COEFFICIENT OF VARIATION	36.71%	0.00%	4.05%	38.70%	53.50%	85.12%	91.97%	23.22%	20.53%
18	5% 1ST VARIETY MEANS (*****=NS)	*****	0.00	8.46	29.54	44.51	0.30	*****	17.67	*****
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)										
19	YIELD KG/HA	1.00	-0.14	-0.06	0.34++	0.47++	0.41++	0.53++	0.67++	0.45++
20	DAYS TO FLOWER	-0.14	1.00	0.77++	0.22	0.11	0.48++	0.30+	0.52++	0.01
21	DAYS TO MATURITY	-0.06	0.77++	1.00	-0.01	0.03	0.27++	0.13	0.55++	0.07
22	NODULE NUMBER 1	0.34++	0.22	-0.01	1.00	0.68++	0.74++	0.69++	0.34++	0.10
23	NODULE NUMBER 2	0.47++	0.11	0.03	0.68++	1.00	0.68++	0.84++	0.40++	0.10
24	NODULE WEIGHT 1	0.41++	0.48++	0.27+	0.74++	0.66++	1.00	0.83++	0.61++	0.06
25	NODULE WEIGHT 2	0.53++	0.30+	0.13	0.69++	0.84++	0.83++	1.00	0.56++	0.11
26	PLANT HEIGHT	0.67++	0.52++	0.55++	0.34++	0.40++	0.61++	0.56++	1.00	0.49++
27	LOGGING	0.45++	0.01	0.07	0.10	0.10	0.06	0.11	0.49++	1.00
28	SHATTER	-0.29+	-0.31+	-0.19	-0.14	-0.17	-0.23	-0.21	-0.39++	-0.10
29	PLANTS HARVEST	-0.17	-0.16	-0.15	-0.01	-0.03	-0.00	-0.02	-0.03	-0.03
30	PODS PER PLANT	0.76++	0.08	0.10	0.19	0.34++	0.28+	0.34++	0.66++	0.39++
31	100 SEED WEIGHT	0.65++	-0.41++	-0.32++	0.23	0.33++	0.11	0.28+	0.18	0.23
32	QUALITY OF SEED	-0.56++	-0.53++	-0.40++	-0.45++	-0.50++	-0.62++	-0.65++	-0.70++	-0.30+

TABLE 169 EXPERIMENT 108 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	BEESON	1.25	191.75	24.35	17.13	3.00	40.0	21.3
11	AMSOY 71	1.00	196.75	26.13	14.43	3.00	38.4	22.0
3	CUTLER 71	1.00	188.50	27.28	16.28	1.50	41.5	20.5
2	WOODWORTH	1.00	199.75	21.70	14.20	2.25	39.5	22.8
9	COLUMBUS	1.00	191.25	19.83	14.65	1.25	39.9	20.9
14	STEELE	1.25	194.75	19.43	17.03	2.75	43.7	21.8
7	WELLS	1.25	198.75	19.73	15.08	2.50	40.5	21.9
1	CALLAND	1.25	187.50	19.00	16.63	3.25	42.7	20.8
4	WILLIAMS	1.00	188.50	19.75	15.25	1.50	42.2	20.7
13	HARK	1.00	196.25	22.40	13.80	3.50	39.2	22.6
5	CLARK 63	1.00	195.25	19.68	14.40	2.25	41.7	21.5
10	CORSOY	1.25	198.00	18.83	13.25	3.50	42.3	20.7
15	SWIFT	1.25	198.25	17.20	13.55	3.50	39.2	22.4
12	HODGSON	2.00	199.00	18.48	14.93	3.75	40.0	23.4
16	ALTONA	1.75	187.00	17.83	16.93	3.75	43.5	17.3
6	FORREST	1.00	191.75	19.68	10.15	2.50	42.8	16.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% 1ST VARIETY MEANS (**NS=NS)								

C O R R E L A T I O N S								
(* - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.29+	0.17	0.76++	0.65++	0.56++	-0.56++	-0.53++
DAYS TO FLOWER	-0.31+	-0.16	0.08	-0.41++	-0.41++	-0.40++	-0.32++	-0.32++
DAYS TO MATURITY	-0.19	-0.15	0.10	-0.23	-0.23	-0.45++	-0.50++	-0.50++
NODULE NUMBER 1	-0.14	-0.01	0.19	0.33++	0.33++	-0.62++	-0.62++	-0.62++
NODULE NUMBER 2	-0.17	0.03	-0.28+	0.11	0.11	-0.65++	-0.65++	-0.65++
NODULE WEIGHT 1	-0.23	-0.00	0.02	0.28+	0.28+	-0.70++	-0.70++	-0.70++
NODULE WEIGHT 2	-0.21	0.02	0.02	0.34++	0.34++	-0.70++	-0.70++	-0.70++
PLANT HEIGHT	-0.39++	-0.03	0.66++	0.18	0.18	-0.30+	-0.30+	-0.30+
LODGING	-0.10	-0.03	0.39++	0.23	0.23	-0.46++	-0.46++	-0.46++
SHATTER	1.00	-0.08	-0.16	0.04	0.04	0.03	0.03	0.03
PLANTS HARVEST	-6.08	1.00	0.15	-0.18	-0.18	-0.41++	-0.41++	-0.41++
PODS PER PLANT	-0.16	6.15	1.00	0.38++	0.38++	-0.25+	-0.25+	-0.25+
100 SEED WEIGHT	0.04	-0.16	0.38++	1.00	1.00	1.00	1.00	1.00
QUALITY OF SEED	0.46++	0.03	-0.41++	-0.25+	-0.25+	1.00	1.00	1.00

TABLE 170 EXPERIMENT 89 YEAR 1976

REGION - MIDDLE EAST
 SITE - SARI
 LATITUDE - 36 DEG. 41 MIN. N ELEVATION - 28 M
 COOPERATORS - H. POURDAVAI, H. GHAFFARI LONGITUDE - 53 DEG. 10 MIN. E
 DATE PLANTED - MAY 1, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - CLAY, PH 7.4
 FERTILIZER USED (KG/HA) - N 27.0, P 69.0, K 25.0

		COUNTRY - IRAN									
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYSTOFLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	
5	WILLIAMS	4210.84	0.00	0.00	209.00	213.00	1.80	2.89	81.75	0.00	
2	WOODWORTH	4159.16	0.00	0.00	174.75	138.75	1.24	1.76	91.75	0.00	
8	WELLS	4154.58	0.00	0.00	111.50	142.25	1.12	2.76	93.75	0.00	
12	CORSOY	3961.21	0.00	0.00	178.50	139.50	1.67	1.42	73.75	0.00	
11	ESSEX	3948.29	0.00	0.00	137.75	146.00	1.09	1.65	95.00	0.00	
9	BEESON	3904.11	0.00	0.00	164.00	172.25	1.40	1.88	90.50	0.00	
10	COLUMBUS	3791.59	0.00	0.00	126.75	168.25	0.97	1.67	72.25	0.00	
16	STEELE	3697.41	0.00	0.00	342.25	341.25	2.71	3.40	88.00	0.00	
1	CALLAND	3647.40	0.00	0.00	105.25	140.75	1.25	1.63	85.00	0.00	
13	AMSOY 71	3544.04	0.00	0.00	243.00	201.00	1.68	2.31	72.25	0.00	
3	HILL	3478.20	0.00	0.00	132.75	135.25	0.89	1.00	138.00	0.00	
7	FORREST	3438.19	0.00	0.00	172.75	163.25	1.79	1.15	75.00	0.00	
14	HODGSON	3339.42	0.00	0.00	128.00	175.00	1.38	2.12	68.75	0.00	
6	CLARK 63	3201.06	0.00	0.00	151.50	175.25	1.40	1.95	93.75	0.00	
4	CUTLER 71	3023.10	0.00	0.00	213.50	269.75	1.95	2.26	86.50	0.00	
15	HARK	2565.51	0.00	0.00	147.50	239.25	1.57	1.67	90.00	0.00	
		GRAND MEAN	3629.01	0.00	0.00	171.17	185.05	1.49	1.97	87.25	0.00
		STANDARD ERROR OF A VARIETY MEAN	282.54	0.00	0.00	29.41	32.34	0.37	0.47	7.10	0.00
		COEFFICIENT OF VARIATION	15.57%	0.00%	0.00%	34.37%	34.95%	4.8	9.8%	47.57%	0.00%
5* LSD VARIETY MEANS (*****=NS)		804.79	0.00	0.00	83.78	92.11	*****	*****	*****	20.23	0.00
CORRELATIONS (\downarrow - PROB=-.05 \uparrow - PROB=-.01)											
YIELD KG/HA	1.00	0.00	0.00	-0.05	-0.10	-0.09	0.04	-0.13	-0.05	0.00	0.00
DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 1	-0.05	0.00	0.00	1.00	0.66+	0.79++	0.46++	-0.11	-0.13	0.00	0.00
NODULE NUMBER 2	-0.10	0.00	0.00	0.66+	1.00	0.62++	0.57++	-0.13	-0.15	0.00	0.00
NODULE WEIGHT 1	-0.09	0.00	0.00	0.79++	0.62++	1.00	0.41++	-0.15	-0.05	0.00	0.00
NODULE WEIGHT 2	0.04	0.00	0.00	0.46++	0.57++	0.41++	1.00	-0.05	0.00	0.00	0.00
PLANT HEIGHT	-0.13	0.00	0.00	-0.11	-0.13	-0.15	-0.05	1.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PODS PER PLANT	0.17	0.00	0.00	0.14	0.07	-0.08	0.27+	0.22	0.00	0.00	0.00
100 SEED WEIGHT	0.32++	0.00	0.00	-0.02	-0.06	0.05	0.11	-0.32+	0.00	0.00	0.00
QUALITY OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 170 EXPERIMENT 89 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
5	WILLIAMS	0.00	0.00	46.25	18.30	0.00
2	WOODWORTH	0.00	0.00	44.25	17.23	0.00
6	WELLS	0.00	0.00	42.25	16.48	0.00
12	CORSOY	0.00	0.00	38.25	18.13	0.00
11	ESSEX	0.00	0.00	46.75	18.63	0.00
9	BEESON	0.00	0.00	54.75	19.38	0.00
10	COLUMBUS	0.00	0.00	46.50	16.63	0.00
16	STEELE	0.00	0.00	56.25	14.15	0.00
1	CALLAND	0.00	0.00	32.75	16.68	0.00
13	AMSOY 71	0.00	0.00	43.00	17.15	0.00
3	HILL	0.00	0.00	47.75	12.80	0.00
7	FORREST	0.00	0.00	42.25	13.63	0.00
14	HODGSON	0.00	0.00	37.25	17.25	0.00
6	CLARK 63	0.00	0.00	41.75	17.13	0.00
4	CUTLER 71	0.00	0.00	41.25	17.10	0.00
15	HARK	0.00	0.00	38.75	14.85	0.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS						
(* - PROB=.05 ++ - PROB=.01)						
YIELD KG/HA						
DAYS TO PLOVER						
DAYS TO MATURITY						
NODULE NUMBER 1						
NODULE NUMBER 2						
NODULE WEIGHT 1						
NODULE WEIGHT 2						
PLANT HEIGHT						
LODGING						
SHATTER						
PLANTS HARVEST						
PODS PER PLANT						
100 SEED WEIGHT						
QUALITY OF SEED						

TABLE 171 EXPERIMENT 72 YEAR 1976

REGION - MIDDLE EAST
 SITE - ABU-GHRAIB
 LATITUDE 33 DEG. N
 COOPERATOR - SALIH M. DAMIRGI
 DATE PLANTED - MAY 19, 1976
 SOIL TYPE - SAND 17.6%, SILT 72.2%, CLAY 10.2%, PH 7.9
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0
 NUMBER OF IRRIGATIONS - 18
 SUBSTITUTE VARIETY - LEE

COUNTRY - IRAQ									
ELEVATION - 300 M									
LONGITUDE - 44 DEG. 15 MIN. E									
DATE HARVESTED - SEPTEMBER, 1976									
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT LODGING
4	RANSOM	1874.96	70.00	161.00	54.75	48.00	1.01	0.94	54.25 1.75
11	DAVIS	1627.83	66.00	144.00	64.25	83.25	2.01	2.93	67.50 1.25
15	COLUMBUS	1595.32	33.00	125.50	23.50	44.50	0.16	0.92	73.75 1.25
1	CALLAND	1473.63	35.00	118.25	26.25	38.75	0.48	0.98	70.25 1.25
7	CUTLER 71	1391.11	35.00	115.75	22.75	46.25	0.23	0.73	60.50 1.75
8	BOSSIER	1337.77	70.00	165.75	21.25	22.25	0.42	0.58	60.00 1.75
9	WILLIAMS	1216.91	33.00	109.50	31.75	29.75	0.22	0.35	60.00 1.50
6	PICKETT 71	1194.82	66.00	163.50	44.75	39.00	0.63	0.57	56.25 1.50
5	HILL	947.27	52.00	131.50	15.00	46.75	0.48	1.22	46.00 1.00
12	FORREST	858.09	66.00	133.50	14.75	27.75	0.27	0.46	46.75 1.00
16	LEE	858.09	66.00	158.75	11.25	42.50	0.33	1.04	45.00 1.50
10	CLARK 63	785.57	33.00	118.50	13.75	23.50	0.13	0.39	59.25 1.00
3	BRAGG	690.97	70.00	158.75	14.75	10.75	0.19	0.32	75.25 1.25
2	WOODWORTH	515.10	35.00	115.75	11.25	10.75	0.13	0.15	61.25 1.00
13	WELLS	413.00	33.00	116.25	34.50	49.00	0.38	1.10	46.00 1.00
14	BEESON	205.04	33.00	111.00	11.25	14.00	0.06	0.32	36.00 1.00
GRAND MEAN									
1061.59									
STANDARD ERROR OF A VARIETY MEAN									
198.42									
COEFFICIENT OF VARIATION									
37.38%									
5% LSD VARIETY MEANS (* * * * * = NS)									
565.17									
C O R R E L A T I O N S									
(+ - PROB=.05 ++ - PROB=.01)									
YIELD KG/HA									
0.25*									
DAYS TO FLOWER									
0.94++									
DAYS TO MATURITY									
0.94++									
NODULE NUMBER 1									
0.40++									
NODULE NUMBER 2									
0.35++									
NODULE WEIGHT 1									
0.35++									
NODULE WEIGHT 2									
0.28++									
PLANT HEIGHT									
0.48++									
LOGGING									
0.42++									
SHATTER									
-0.59++									
PLANTS HARVEST									
0.25+									
PODS PER PLANT									
100 SEED WEIGHT									
0.53++									
QUALITY OF SEED									

TABLE 171 EXPERIMENT 72 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	RANSOM	1.00	254.00	7.70	16.40	1.25	59.5	22.0
11	DAVIS	1.00	233.00	9.95	15.50	2.00	41.4	21.0
15	COLUMBUS	1.00	216.00	8.57	15.43	3.25	41.5	20.8
1	CALLAND	1.00	210.00	8.62	15.70	3.50	43.7	19.7
7	CUTLER 71	1.00	205.00	6.00	14.55	2.25	39.9	22.2
8	BOSSIER	1.00	256.75	11.48	13.43	1.75	43.3	18.0
9	WILLIAMS	1.00	209.50	4.90	13.53	1.00	42.1	21.1
6	PICKETT 71	1.00	254.00	10.10	13.80	1.00	42.8	19.1
5	HILL	1.00	224.50	5.10	12.20	2.75	40.7	19.0
12	FORREST	1.25	223.00	4.95	9.82	3.00	41.0	20.4
16	LEE	1.00	250.00	8.05	12.25	2.00	42.7	19.6
10	CLARK 63	2.00	209.50	4.82	13.98	2.25	43.9	20.7
3	BRAGG	1.50	250.00	8.45	11.78	3.50	37.4	22.7
2	WOODWORTH	2.00	206.75	6.45	13.60	3.75	43.0	19.9
13	WELLS	3.25	208.25	3.43	12.63	4.75	42.1	21.7
14	BEESON	3.25	202.25	3.83	14.03	4.00	39.1	19.9
STANDARD ERROR OF A VARIETY MEAN		1.45	225.78	7.02	13.66	2.63		
STANDARD COEFFICIENT OF VARIATION		0.20	2.23	1.03	0.96	0.26		
5% LSD VARIETY MEANS (*****=NS)		27.05%	1.98%	29.20%	13.98%	19.57%		
5% LSD VARIETY MEANS (*****=NS)		0.56	6.36	2.92	2.72	0.73		

CORRELATIONS

(+ - PROB=.05

++ - PROB=.01)

YIELD	KG/HA	-0.59++	0.25+	0.53++	0.55++	0.57++
	DAYS TO FLOWER	-0.42++	0.94++	0.53++	-0.09	-0.45++
	DAYS TO MATURITY	-0.40++	0.98++	0.60++	-0.01	-0.44++
	NODULE NUMBER 1	-0.10	0.18	0.12	0.29+	-0.22
	NODULE NUMBER 2	-0.15	0.06	0.07	0.24	-0.09
	NODULE WEIGHT 1	-0.16	0.22	0.16	0.26+	-0.18
	NODULE WEIGHT 2	-0.12	0.09	0.10	0.24	-0.04
	PLANT HEIGHT	-0.31+	0.07	0.43++	0.46++	-0.11
	LODGING	-0.33++	0.29+	0.47++	0.30+	-0.35++
	SHATTER	1.00	-0.42++	-0.51++	-0.17	0.58++
	PLANTS HARVEST	-0.42++	1.00	0.50++	-0.03	-0.47++
	PODS PER PLANT	-0.51++	0.56++	1.00	0.41++	-0.36++
	100 SEED WEIGHT	-0.17	-0.03	0.41++	1.00	-0.20
	QUALITY OF SEED	0.58++	-0.47++	-0.36++	-0.20	1.00

TABLE 172 EXPERIMENT 81 YEAR 1976

REGION - MIDDLE EAST
 SITE - BET-DAGAN
 LATITUDE - 32 DEG. N
 COOPERATORS - B. RETIG, V. LEHRER
 DATE PLANTED - APRIL 4, 1976
 SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, PH 7.6
 FERTILIZER USED (KG/HA) - N 41.0, P 55.0, K 100.0
 AMOUNT OF MOISTURE - 420 MM
 NUMBER OF IRRIGATIONS - 8 (420 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - ISRAEL	
											DATE HARVESTED - AUGUST, 1976	ELEVATION - 80 M
5	WILLIAMS	4721.78	44.25	123.00	0.00	0.00	0.00	0.00	94.25	1.25		
13	AMSOY 71	4446.72	43.00	116.50	0.00	0.00	0.00	0.00	94.65	3.50		
15	HARK	4446.72	43.00	115.75	0.00	0.00	0.00	0.00	88.87	2.50		
9	BEESON	4417.55	43.00	120.25	0.00	0.00	0.00	0.00	80.32	1.75		
1	CAILLAND	4413.38	43.00	131.00	0.00	0.00	0.00	0.00	105.75	4.75		
4	CUTLER 71	4325.86	45.00	128.75	0.00	0.00	0.00	0.00	117.83	3.50		
8	WELLS	4250.85	43.00	115.75	0.00	0.00	0.00	0.00	70.77	1.50		
2	WOODWORTH	3959.12	44.00	115.00	0.00	0.00	0.00	0.00	80.75	1.50		
6	CLARK 63	3838.27	45.00	127.50	0.00	0.00	0.00	0.00	104.63	3.75		
16	STEELE	3804.93	43.00	105.50	0.00	0.00	0.00	0.00	70.27	1.25		
12	CORSOY	3454.86	43.00	108.25	0.00	0.00	0.00	0.00	70.27	1.50		
14	HODGSON	2692.20	42.00	105.75	0.00	0.00	0.00	0.00	62.25	1.00		
11	ESSEX	2588.02	81.00	158.25	0.00	0.00	0.00	0.00	101.38	1.50		
10	COLUMBUS	2567.18	45.00	133.75	0.00	0.00	0.00	0.00	110.38	2.50		
7	FORREST	2542.17	84.25	160.50	0.00	0.00	0.00	0.00	111.88	2.00		
3	HILL	2533.84	84.00	158.50	0.00	0.00	0.00	0.00	107.98	1.75		
GRAND MEAN		3687.72	51.02	126.47	0.00	0.00	0.00	0.00	92.01	2.22		
STANDARD ERROR OF A VARIETY MEAN		240.07	0.27	1.43	0.00	0.00	0.00	0.00	4.45	0.44		
COEFFICIENT OF VARIATION		13.02%	1.07%	2.26%	0.00%	0.00%	0.00%	0.00%	9.66%	39.28%		
5% LSE VARIETY MEANS (*****=NS)		683.82	0.78	4.08	0.00	0.00	0.00	0.00	12.67	1.24		
CORRELATIONS (+ - PROB=.05 + - PROB=.01)												
YIELD	KG/HA	1.00	-0.59++	-0.45++	0.00	0.00	0.00	0.00	0.00	-0.03	0.40++	
DAYS TO FLOWER		-0.59++	1.00	0.89++	0.00	0.00	0.00	0.00	0.00	-0.15	0.43++	
DAYS TO MATURITY		-0.45++	0.89++	1.00	0.00	0.00	0.00	0.00	0.00	0.13	0.69++	
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
PLANT HEIGHT		-0.03	-0.43++	-0.69++	0.00	0.00	0.00	0.00	0.00	0.58++	1.00	
LODGING		0.40++	-0.15	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.52++	-0.58++	-0.59++	0.00	0.00	0.00	0.00	0.00	-0.32+	0.03	
PODS PER PLANT		-0.08	0.31+	0.38++	0.00	0.00	0.00	0.00	0.00	0.24	0.08	
100 SEED WEIGHT		0.80++	-0.67++	-0.59++	0.00	0.00	0.00	0.00	0.00	-0.21	0.29+	
QUALITY OF SEED		0.45++	-0.24	-0.13	0.00	0.00	0.00	0.00	0.00	0.03	0.36++	

TABLE 172 EXPERIMENT 81 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
5	WILLIAMS	1.00	199.50	40.05	19.68	1.75	41.1	22.9
13	AMSOY 71	1.00	179.25	43.20	18.58	3.50	38.6	22.2
15	HARK	1.00	207.50	45.85	17.88	2.25	40.4	22.3
9	BEESON	1.00	201.00	43.03	17.90	3.75	40.1	21.9
1	CALLAND	1.00	197.50	47.35	17.68	3.00	39.2	21.8
4	CUTLER 71	1.00	199.75	46.35	18.20	3.25	41.1	22.6
8	WELLS	1.00	221.00	49.80	15.20	3.25	40.5	23.2
2	WOODWORTH	1.00	222.50	40.58	15.68	2.00	38.1	22.7
6	CLARK 63	1.00	189.75	40.53	16.48	2.25	40.4	22.1
16	STEELE	1.00	200.50	39.43	16.58	2.00	39.9	22.4
12	CORSOY	1.00	186.25	54.20	17.10	2.00	40.6	22.2
14	HODGSON	1.00	190.25	34.88	17.00	1.75	40.3	23.8
11	ESSEX	1.00	134.25	61.70	12.93	1.50	42.3	20.5
10	COLUMBUS	1.00	165.00	51.45	12.43	1.75	41.0	20.8
7	FORREST	1.00	160.50	45.95	12.83	2.50	42.8	19.8
3	HILL	1.00	166.50	51.03	12.30	2.00	42.4	19.4
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.52++	-0.08	0.80++	0.45++		
DAYS TO FLOWER	0.00	-0.58++	0.31+	-0.67++	-0.24			
DAYS TO MATURITY	0.00	-0.59++	0.38++	-0.59++	-0.13			
ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00			
ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00			
ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00			
ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT HEIGHT	0.00	-0.32+	0.24	-0.21	0.03			
LODGING	0.00	0.03	0.08	0.29+	0.36++			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.43++	0.41++	-0.24	-0.11		
PODS PER PLANT	0.00	-0.43++	1.00	-0.24	1.00	0.33++		
100 SEED WEIGHT	0.00	0.41++	-0.24	-0.11	0.33++	1.00		
QUALITY OF SEED	0.00	0.23	-0.11					

TABLE 173 EXPERIMENT 82 YEAR 1976

REGION - MIDDLE EAST
 SITE - BET-DAGAN
 LATITUDE - 32 DEG. N
 COOPERATORS - B. RETIG, V. LEHRER
 DATE PLANTED - JUNE 7, 1976
 SOIL TYPE - SAND 40%, SILT 26%, CLAY 34%, PH 7.6
 FERTILIZER USED (KG/HA) - P 26.0, K 25.0
 AMOUNT OF MOISTURE - 540 MM
 NUMBER OF IRRIGATIONS - 9 (540 MM)

TABLE 173 EXPERIMENT 82 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	207.25	47.50	17.23	2.00	39.7
13	AMSOY 71	1.00	205.25	42.50	17.33	2.50	37.7
8	WELLS	1.00	212.00	33.25	15.85	2.75	41.3
9	BERSON	1.00	192.25	41.50	19.28	3.25	42.6
5	WILLIAMS	1.00	189.00	40.00	17.00	1.25	40.6
14	HODGSON	1.00	194.00	40.75	16.00	1.50	37.9
4	CUTLER 71	1.00	185.75	50.50	17.78	2.25	41.6
2	WOODNORTH	1.00	206.75	47.00	15.20	1.25	38.9
6	CLARK 63	1.00	202.00	47.50	16.18	1.25	42.1
12	CORSOY	1.00	189.50	53.25	14.63	2.25	39.2
15	HARK	1.00	170.00	49.00	16.40	1.75	39.9
10	COLUMBUS	1.00	182.50	57.25	13.00	1.00	40.7
16	STEELE	1.00	196.25	45.75	16.88	2.00	41.5
11	ESSEX	1.00	172.00	69.50	8.97	1.25	39.7
3	HILL	1.00	166.25	72.25	9.45	2.00	41.2
7	FORREST	1.00	150.25	73.25	8.90	2.50	38.3
STANDARD ERROR OF A VARIETY MEAN							
COEFFICIENT OF VARIATION							
5 X LSD VARIETY MEANS (*****=NS)							
GRAND MEAN							
		1.00	188.84	50.67	15.00	1.92	
		0.00	9.00	4.70	0.55	0.22	
		0.00%	9.53%	18.57%	7.36%	23.05%	
		0.00	25.63	13.40	1.57	0.63	
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)							
YIELD	KG/HA	0.00	0.77++	-0.70++	0.82++	0.13	
DAYS TO FLOWER		0.00	-0.53++	-0.74++	-0.85++	-0.08	
DAYS TO MATURITY		0.00	-0.48++	-0.63++	-0.63++	-0.02	
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT		0.00	-0.07	0.30+	-0.19	0.00	
LODGING		0.00	0.09	0.24	0.09	0.23	
SHATTER		1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		1.00	-0.54++	0.49++	0.49++	0.07	
PODS PER PLANT		0.00	-0.54++	1.00	-0.68++	-0.12	
100 SEED WEIGHT		0.00	0.49++	-0.68++	1.00	0.28+	
QUALITY OF SEED		0.00	0.07	-0.12	0.28+	1.00	

TABLE 174 EXPERIMENT 143 YEAR 1976

REGION - MIDDLE EAST
 SITE - DEIR ALLA
 LATITUDE - 35 DEG. 12 MIN. N.
 COOPERATORS - N. KATKHUDA, A. HAMMUDA
 DATE PLANTED - MARCH 3, 1977
 SOIL TYPE - SAND 25%, SILT 35%, CLAY 40%, PH 8.0
 FERTILIZER USED (KG/HA) - N 40.0, P 40.0
 NUMBER OF IRRIGATIONS - 25

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - JORDAN	
											ELEVATION - 68 M	LONGITUDE - 35 DEG. 36 MIN. E
6	PICKETT 71	6534.64	51.25	183.75	0.00	0.00	0.00	0.00	49.50	0.00		
15	COLUMBUS	6051.21	35.25	135.50	0.00	0.00	0.00	0.00	38.75	0.00		
7	CUTLER 71	5726.14	40.00	135.50	0.00	0.00	0.00	0.00	42.75	0.00		
9	WILLIAMS	5346.90	35.75	105.50	0.00	0.00	0.00	0.00	41.00	0.00		
3	BRAGG	4975.99	45.00	184.50	0.00	0.00	0.00	0.00	81.00	0.00		
11	DAVIS	4967.66	55.50	156.75	0.00	0.00	0.00	0.00	43.25	0.00		
4	RANSOM	4596.75	46.75	185.25	0.00	0.00	0.00	0.00	80.00	0.00		
10	CLARK 63	4555.08	35.00	135.75	0.00	0.00	0.00	0.00	39.50	0.00		
8	BOSSIER	4121.66	78.75	188.00	0.00	0.00	0.00	0.00	82.50	0.00		
13	WELLS	3959.12	55.75	135.75	0.00	0.00	0.00	0.00	45.00	0.00		
12	FORREST	3784.09	45.00	125.50	0.00	0.00	0.00	0.00	62.50	0.00		
14	BEESON	3634.06	35.25	135.00	0.00	0.00	0.00	0.00	38.75	0.00		
16	ESSEX	3629.89	45.75	125.00	0.00	0.00	0.00	0.00	59.50	0.00		
5	HILL	3559.04	59.75	187.50	0.00	0.00	0.00	0.00	77.50	0.00		
2	WOODWORTH	3548.63	40.50	136.00	0.00	0.00	0.00	0.00	43.25	0.00		
1	CALLAND	3065.20	39.75	135.75	0.00	0.00	0.00	0.00	41.75	0.00		
STANDARD ERROR OF A VARIETY MEAN												
COEFFICIENT OF VARIATION												
5% LSD VARIETY MEANS (*****=NS)												
CORRELATIONS (* - PROB=.05 ** - PROB=.01)												
YIELD	KG/HA										-0.12	0.00
DAYS TO FLOWER		1.00	-0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.62**	0.00
DAYS TO MATURITY		-0.10	1.00	0.64**	0.00	0.00	0.00	0.00	0.00	0.00	0.70**	0.00
MODULE NUMBER 1		0.10	0.64**	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		-0.12	0.62**	0.70**	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.65**	0.05	0.29+	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 174 EXPERIMENT 143 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	0.00	171.25	0.00	0.00	0.00
15	COLUMBUS	0.00	162.00	0.00	0.00	0.00
7	CUTLER 71	0.00	155.00	0.00	0.00	0.00
9	WILLIAMS	0.00	153.00	0.00	0.00	0.00
3	BRAGG	0.00	167.50	0.00	0.00	0.00
11	DAVIS	0.00	152.75	0.00	0.00	0.00
4	RANSOM	0.00	164.75	0.00	0.00	0.00
10	CLARK 63	0.00	162.25	0.00	0.00	0.00
8	BOSSIER	0.00	158.25	0.00	0.00	0.00
13	WELLS	0.00	155.25	0.00	0.00	0.00
12	FORREST	0.00	147.50	0.00	0.00	0.00
14	BEESON	0.00	138.25	0.00	0.00	0.00
16	ESSEX	0.00	133.75	0.00	0.00	0.00
5	HILL	0.00	144.25	0.00	0.00	0.00
2	WOODWORTH	0.00	161.00	0.00	0.00	0.00
1	CALLAND	0.00	132.75	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSL VARIETY MEANS (**=NS)						
CORRELATIONS						
(+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	0.65++	0.00	0.00	0.00
DAYS TO FLOWER		0.00	0.05	0.00	0.00	0.00
DAYS TO MATURITY		0.00	0.29+	0.00	0.00	0.00
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		0.00	0.10	0.00	0.00	0.00
LODGING		0.00	0.00	0.00	0.00	0.00
SHATTER		1.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.00	1.00	0.00	0.00	0.00
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00
100 SEED WEIGHT		0.00	0.00	0.00	1.00	0.00
QUALITY OF SEED		0.00	0.00	0.00	1.00	

TABLE 175 EXPERIMENT 142 YEAR 1976

REGION - MIDDLE EAST
 SITE - WADI DHULEIL
 LATITUDE - 32 DEG. 9 MIN. N
 COOPERATORS - N. KATKUDAE M. KHUADARE
 DATE PLANTED - MARCH 9, 1977
 SOIL TYPE - SAND 36%, SILT 19%, CLAY 45%, PH 8.0
 FERTILIZER USED (KG/HA) - N 80.0, P 30.0
 NUMBER OF IRRIGATIONS - 26

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - JORDAN			
											ELEVATION - 580 M			
6	PICKETT 71	3567.38	101.25	209.00	0.00	0.00	0.00	0.00	75.00	0.00	0.49++	0.49++	0.00	0.00
12	FORREST	2525.50	92.00	179.75	0.00	0.00	0.00	0.00	87.50	0.00	0.86++	0.86++	0.00	0.00
4	RANSOM	2442.15	86.00	204.50	0.00	0.00	0.00	0.00	66.25	0.00	0.74++	0.74++	0.00	0.00
8	BOSSIER	2287.96	109.50	205.00	0.00	0.00	0.00	0.00	92.50	0.00	0.00	0.00	0.00	0.00
5	HILL	2142.09	88.50	163.25	0.00	0.00	0.00	0.00	72.50	0.00	0.00	0.00	0.00	0.00
16	ESSEX	1956.64	92.00	179.00	0.00	0.00	0.00	0.00	76.25	0.00	0.00	0.00	0.00	0.00
15	COLUMBUS	1758.68	60.00	142.00	0.00	0.00	0.00	0.00	68.25	0.00	0.00	0.00	0.00	0.00
9	WILLIAMS	1677.42	56.50	126.00	0.00	0.00	0.00	0.00	53.75	0.00	0.00	0.00	0.00	0.00
11	DAVIS	1556.56	122.00	188.75	0.00	0.00	0.00	0.00	121.25	0.00	0.00	0.00	0.00	0.00
7	CUTLER 71	1533.64	68.50	142.00	0.00	0.00	0.00	0.00	62.50	0.00	0.00	0.00	0.00	0.00
10	CLARK 63	1235.66	59.00	124.50	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00	0.00
1	CALLAND	1218.99	58.50	130.75	0.00	0.00	0.00	0.00	53.75	0.00	0.00	0.00	0.00	0.00
3	BRAGG	1183.57	112.00	207.00	0.00	0.00	0.00	0.00	88.25	0.00	0.00	0.00	0.00	0.00
2	WOODWORTH	1121.06	56.25	114.25	0.00	0.00	0.00	0.00	42.50	0.00	0.00	0.00	0.00	0.00
13	WELLS	950.19	51.75	112.75	0.00	0.00	0.00	0.00	33.75	0.00	0.00	0.00	0.00	0.00
14	BEESON	627.21	51.50	110.50	0.00	0.00	0.00	0.00	31.25	0.00	0.00	0.00	0.00	0.00
GRAND MEAN		1736.55	79.08	158.69	0.00	0.00	0.00	0.00	67.67	0.00	0.00	0.00	0.00	0.00
STANDARD ERROR OF A VARIETY MEAN		365.48	4.89	49.99	0.00	0.00	0.00	0.00	5.33	0.00	0.00	0.00	0.00	0.00
5% LSD VARIETY MEANS (** * * * * =NS)		42.09%	12.36%	6.29%	0.00%	0.00%	0.00%	0.00	15.76%	0.00	0.00	0.00	0.00	0.00
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)														
YIELD	KG/HA	1.00	0.49++	0.58++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO	FLOWER	0.49++	1.00	0.89++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO	MATURITY	0.58++	0.89++	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE	NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE	NUMBER 2	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE	WEIGHT 1	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NODULE	WEIGHT 2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT	HEIGHT	0.49++	0.86++	0.74++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS	HARVEST	0.10	-0.22	-0.23	0.00	0.00	0.00	0.00	0.10	0.00	0.00	-0.10	0.00	0.00
PODS PER	PLANT	0.60++	0.73++	0.78++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED	WEIGHT	0.67++	0.27+	0.41++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUALITY	OF SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 175 EXPERIMENT 142 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	0.00	200.00	58.75	13.00	0.00
12	FORREST	0.00	200.00	56.75	12.00	0.00
4	RANSOM	0.00	200.00	45.75	15.00	0.00
8	BOSSIER	0.00	200.00	65.25	11.00	0.00
5	HILL	0.00	200.00	28.50	11.50	0.00
16	ESSEX	0.00	200.00	61.00	9.00	0.00
15	COLUMBUS	0.00	200.00	24.75	9.75	0.00
9	WILLIAMS	0.00	200.00	19.50	11.75	0.00
11	DAVIS	0.00	200.00	44.00	12.00	0.00
7	CUTLER 71	0.00	200.00	24.25	10.25	0.00
10	CLARK 63	0.00	200.00	20.00	8.75	0.00
1	CALLAND	0.00	200.00	19.00	10.25	0.00
3	BRAGG	0.00	198.25	49.75	7.75	0.00
2	WOODWORTH	0.00	200.00	20.25	10.00	0.00
13	WELLS	0.00	200.00	18.50	9.25	0.00
14	BEESON	0.00	200.00	19.50	8.75	0.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD	KG/HA	0.00	-0.10	0.60++	0.67++	0.00
DAYS TO FLOWER	0.00	-0.22	0.73++	0.27+	0.00	
DAYS TO MATURITY	0.00	-0.23	0.78++	0.41++	0.00	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	-0.10	0.58++	0.34++	0.00	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.14	0.29+	0.00	
PODS PER PLANT	0.00	-0.14	1.00	0.29+	0.00	
100 SEED WEIGHT	0.00	0.29+	0.29+	1.00	0.00	
QUALITY OF SEED	0.00	0.00	0.00	0.00	1.00	

TABLE 176 EXPERIMENT 184 YEAR 1976

REGION - MIDDLE EAST
 SITE - WADI JIZA
 LATITUDE - 17 DEG. 55 MIN. N
 COOPERATOR - M.N. BOUKHARI
 DATE PLANTED - NOVEMBER 10, 1976
 SOIL TYPE - SILTY LOAM, PH 7.7
 FERTILIZER USED (KG/HA) - N 30.0, P 44.0, K 83.0
 AMOUNT OF MOISTURE - 3 MM
 NUMBER OF IRRIGATIONS - 6

COUNTRY - SAUDI ARABIA
 ELEVATION - 83 M
 LONGITUDE - 55 DEG. 43 MIN. E
 DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	C O R R E L A T I O N S (+ - PROB=.05 + - PROB=.01)
9	WILLIAMS	1723.26	0.00	67.00	30.25	55.00	0.00	0.00	28.25	2.00	
1	CALLAND	1644.50	0.00	81.00	49.75	37.00	0.00	0.00	25.40	1.75	
15	COLUMBUS	1505.72	0.00	81.50	39.50	46.75	0.00	0.00	25.25	2.00	
10	CLARK 63	1447.37	0.00	80.00	36.25	43.75	0.00	0.00	26.00	1.75	
11	COBB	1289.01	0.00	79.00	34.50	23.00	0.00	0.00	19.50	1.75	
12	DAVIS	1163.98	0.00	79.00	34.50	23.00	0.00	0.00	19.50	1.75	
16	ESSEX	1137.73	0.00	76.25	39.00	26.25	0.00	0.00	19.25	1.75	
14	FORREST	1094.39	0.00	72.00	23.00	34.50	0.00	0.00	19.00	1.50	
7	CUTLER 71	1062.71	0.00	80.75	30.25	35.25	0.00	0.00	20.75	1.00	
5	HILL	1062.30	0.00	68.75	19.75	25.50	0.00	0.00	18.75	1.50	
13	IMPROVED PELICAN	1050.21	0.00	75.75	21.00	31.00	0.00	0.00	26.75	1.00	
3	BRAGG	1049.38	0.00	65.50	33.00	17.75	0.00	0.00	20.25	1.25	
4	RANSOM	914.35	0.00	74.50	34.50	49.00	0.00	0.00	20.25	1.50	
2	WOODWORTH	843.50	0.00	70.00	20.00	21.50	0.00	0.00	20.75	2.00	
8	BOSSIER	789.32	0.00	74.50	41.50	40.25	0.00	0.00	17.75	1.50	
6	PICKETT 71	625.12	0.00	74.75	25.25	18.00	0.00	0.00	16.75	2.00	
GRAND MEAN		1150.18	0.00	75.02	33.56	34.16	0.00	0.00	21.82	1.64	
STANDARD ERROR OF A VARIETY MEAN		120.95	0.00	3.23	10.97	9.88	0.00	0.00	1.46	0.20	
COEFFICIENT OF VARIATION		21.03%	0.00%	8.61%	65.40%	57.86%	0.00%	0.00%	13.40%	24.39%	
5% LSD VARIETY MEANS (*****NS)		344.52	0.00	9.20	*****NS	*****NS	0.00	0.00	4.16	0.57	
C O R R E L A T I O N S (+ - PROB=.05 + - PROB=.01)											
YIELD	KG/HA	1.00	0.00	0.30+	0.16	0.40++	0.00	0.00	0.70++	0.19	
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	
DAYS TO MATURITY		0.30+	0.00	1.00	0.19	0.30+	0.00	0.00	0.28+	0.22	
MODULE NUMBER 1		0.16	0.00	0.19	1.00	0.46++	0.00	0.00	0.10	0.07	
MODULE NUMBER 2		0.40++	0.00	0.30+	0.00	1.00	0.00	0.00	0.47++	0.20	
MODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
PLANT HEIGHT		0.70++	0.00	0.28+	0.10	0.47++	0.00	0.00	1.00	0.06	
LOGGING		0.19	0.00	0.22	0.07	0.20	0.00	0.00	0.06	1.00	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.43++	0.00	-0.19	-0.03	-0.22	0.00	0.00	0.19	-0.15	
PODS PER PLANT		0.45++	0.00	0.21	0.03	0.57++	0.00	0.00	0.54++	0.21	
100 SEED WEIGHT		0.39++	0.00	0.26+	0.09	0.20	0.00	0.00	0.16	0.33++	
QUALITY OF SEED		-0.35++	0.00	-0.07	0.04	0.01	0.00	0.00	-0.35++	-0.27*	

TABLE 176 EXPERIMENT 184 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	WILLIAMS	1.00	254.00	16.15	19.50	1.00	43.1
1	CALLAND	1.00	268.75	11.33	23.00	1.00	41.6
15	COLUMBUS	1.00	215.75	16.85	19.75	1.25	43.3
10	CLARK 63	1.00	222.75	13.70	18.75	1.00	42.8
11	COBB	1.00	189.00	12.50	20.00	2.00	41.9
12	DAVIS	1.00	208.25	9.40	19.25	1.50	41.3
16	ESSEX	1.00	234.25	12.30	17.25	2.00	42.8
14	FORREST	1.00	209.00	10.15	16.25	2.00	40.6
7	CUTLER 71	1.00	146.75	15.58	21.00	1.00	42.4
5	HILL	1.00	241.75	10.08	18.25	1.00	40.7
13	IMPROVED PELICAN	1.00	212.25	13.73	15.25	2.00	43.2
3	BRAGG	1.00	248.25	11.00	18.75	2.00	42.5
4	RANSOM	1.00	155.75	13.65	21.25	2.25	41.1
2	WOODWORTH	1.00	211.25	11.53	17.00	1.00	41.2
8	BOSSIER	1.00	130.00	14.20	18.50	1.75	44.3
6	PICKETT 71	1.00	166.50	7.35	18.00	2.00	42.1
GRAND MEAN							
		1.00	207.14	12.47	18.86	1.55	
STANDARD ERROR OF A VARIETY MEAN							
		0.00	16.00	1.50	0.82	0.13	
COEFFICIENT OF VARIATION							
		0.00%	15.45%	24.09%	8.70%	17.25%	
5% LSD VARIETY MEANS (*****=NS)							
CORRELATIONS (* - PROB=.05 ** - PROB=.01)							
YIELD	KG/HA	0.00	0.43++	0.45++	0.39++	-0.35++	
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00	0.00	
DAYS TO MATURITY	0.00	-0.19	0.21	0.26+	-0.07		
NODE NUMBER 1	0.00	-0.03	0.03	0.09	0.04		
NODE NUMBER 2	0.00	-0.22	0.57++	0.20	0.01		
NODE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
NODE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT	0.00	0.19	0.54++	0.16	-0.35++		
LODGING	0.00	-0.15	0.21	0.33++	-0.27+		
SHATTER	1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST	0.00	1.00	-0.26+	-0.07	-0.33++		
PODS PER PLANT	0.00	-0.26+	1.00	0.35++	-0.05		
100 SEED WEIGHT	0.00	-0.07	0.35++	1.00	-0.15		
QUALITY OF SEED	0.00	-0.33++	-0.05	-0.15	1.00		

TABLE 177 EXPERIMENT 110 YEAR 1976

REGION - NORTH AMERICA
 SITE - URBANA, ILLINOIS
 LATITUDE - 40 DEG. 7 MIN. N
 COOPERATOR - BOB DUNKER
 DATE PLANTED - MAY 24, 1976
 FERTILIZER USED (KG/HA) - P 35.0, K 66.0
 AMOUNT OF MOISTURE - 494 MM

COUNTRY - U.S.A.
 ELEVATION - 226 M
 LONGITUDE - 88 DEG. 13 MIN. W
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
4	WILLIAMS	36.36-43	40.00	123.00	0.00	0.00	0.00	0.00	99.25	2.00
3	CUTLER 71	35.90-40	48.00	130.00	0.00	0.00	0.00	0.00	97.25	2.00
2	WOODWORTH	32.59-07	39.00	119.00	0.00	0.00	0.00	0.00	102.75	1.50
6	WELLS	30.08-86	37.00	106.00	0.00	0.00	0.00	0.00	95.00	1.00
11	HODGSON	29.60-55	32.00	99.00	0.00	0.00	0.00	0.00	80.00	1.00
13	STEELE	29.04-04	30.00	98.00	0.00	0.00	0.00	0.00	82.50	1.25
12	HARK	28.88-09	33.00	111.75	0.00	0.00	0.00	0.00	94.75	1.25
8	COLUMBUS	27.42-70	54.00	131.50	0.00	0.00	0.00	0.00	97.00	2.00
1	CALLAND	26.61-12	42.00	116.25	0.00	0.00	0.00	0.00	94.50	2.00
10	AMSOY 71	26.08-26	38.00	111.00	0.00	0.00	0.00	0.00	97.25	1.50
5	CLARK 63	25.97-77	43.00	128.00	0.00	0.00	0.00	0.00	98.75	2.00
7	BEESON	25.63-59	37.00	112.00	0.00	0.00	0.00	0.00	99.75	1.75
9	CORSOY	25.07-54	37.00	106.50	0.00	0.00	0.00	0.00	88.00	1.75
14	SWIFT	23.59-87	31.00	95.00	0.00	0.00	0.00	0.00	79.75	2.25
15	ALTONA	20.89-16	26.00	92.00	0.00	0.00	0.00	0.00	64.50	2.00
GRAND MEAN		28.25-16	37.80	111.93	0.00	0.00	0.00	0.00	91.40	1.68
STANDARD ERROR OF A VARIETY MEAN		140.05	0.00	0.75	0.00	0.00	0.00	0.00	2.02	0.17
COEFFICIENT OF VARIATION		9.91%	0.00%	1.34%	0.00%	0.00%	0.00%	0.00%	4.43%	20.29%
5% LSE VARIETY MEANS (*****NS=NS)		399.71	0.00	2.14	0.00	0.00	0.00	0.00	5.78	0.49
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.34++	0.46+++	0.00	0.00	0.00	0.00	0.00	0.47++
DAYS TO FLOWER		0.34++	1.00	0.92++	0.00	0.00	0.00	0.00	0.00	0.65++
DAYS TO MATURITY		0.46++	0.92++	1.00	0.00	0.00	0.00	0.00	0.74++	0.26+
MODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
MODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.47++	0.65++	0.74++	0.00	0.00	0.00	0.00	0.00	-0.01
LOGGING		-0.16	0.27+	0.26+	0.00	0.00	0.00	0.00	-0.01	1.00
SHATTER		-0.31+	-0.30+	-0.34++	0.00	0.00	0.00	0.00	-0.34++	0.30+
PLANTS HARVEST		-0.08	0.02	-0.06	0.00	0.00	0.00	0.00	-0.33+	0.22
PODS PER PLANT		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100 SEED WEIGHT		0.33++	-0.11	-0.01	0.00	0.00	0.00	0.00	0.11	-0.04
QUALITY OF SEED		-0.53++	-0.50++	-0.51++	0.00	0.00	0.00	0.00	-0.28+	-0.12

TABLE 177 EXPERIMENT 110 YEAR 1976 (CONTINUED)

EXPERIMENT 110 YEAR 1976

TABLE 177

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
4	WILLIAMS	1.00	199.75	0.00	17.00	1.00	39.8	19.9
3	CUTLER 71	1.00	203.50	0.00	16.75	1.25	43.4	20.3
2	WOODWORTH	1.00	185.50	0.00	14.88	1.00	40.7	20.2
6	WELLS	1.00	210.50	0.00	15.50	2.00	39.3	20.0
11	HODGSON	1.00	198.50	0.00	15.63	1.75	41.8	21.4
13	STEELE	1.00	204.75	0.00	15.88	1.75	42.8	20.6
12	HARK	1.00	177.00	0.00	15.63	2.00	39.2	19.4
8	COLUMBUS	1.00	198.25	0.00	13.88	1.00	45.4	18.3
1	CALLAND	1.00	201.25	0.00	16.38	2.00	41.6	19.4
10	AMSOY 71	1.00	201.00	0.00	15.13	2.00	40.4	19.6
5	CLARK 63	1.00	210.50	0.00	13.63	2.00	43.6	19.9
7	BEESON	1.00	182.75	0.00	17.38	2.00	41.8	19.5
9	CORSOY	1.25	213.25	0.00	14.13	1.75	40.9	19.7
14	SWIFT	1.25	207.00	0.00	13.50	2.00	41.2	20.9
15	ALTONA	1.50	203.50	0.00	16.38	2.00	43.2	19.9
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
C O R R E L A T I O N S								
(+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.31+	-0.08	0.00	0.33++	-0.53++		
DAYS TO FLOWER		-0.30+	0.02	0.00	-0.11	-0.50++		
DAY TO MATURITY		-0.34++	-0.06	0.00	-0.01	-0.51++		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		-0.34++	-0.33+	0.00	0.11	-0.28+		
LOGGING		0.30+	0.22	0.00	-0.04	-0.12		
SHATTER		1.00	-0.03	0.00	-0.05	0.17		
PLANTS HARVEST		-0.03	1.00	0.00	-0.23	0.09		
PODS PER PLANT		0.00	0.00	1.00	0.00	0.00		
100 SEED WEIGHT		-0.05	-0.23	0.00	1.00	0.06		
QUALITY OF SEED		0.17	0.09	0.00	0.06	1.00		

TABLE 178 EXPERIMENT 192 YEAR 1976

REGION - OCEANIA
 SITE - BOURAIL
 LATITUDE - 21 DEG. S
 COOPERATOR - ROBERT ARRIGHI
 DATE PLANTED - DECEMBER 7, 1976
 SOIL TYPE - SAND, PH 6.8
 FERTILIZER USED (KG/HA) - N 35.0, P 76.5, K 51.5
 AMOUNT OF MOISTURE - 609 MM
 NUMBER OF IRRIGATIONS - 7

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE NUMBER 1 WEIGHT 1	NODULE NUMBER 2 WEIGHT 2	PLANT HEIGHT	LOGGING	
15	ESSEX	3770-34	25.00	114.00	31.50	220.75	0.10	1.67	50.10	1.00	
1	CALLAND	3401.51	19.00	103.25	10.75	94.25	0.02	0.75	60.35	1.25	
10	CLARK 63	3327.75	20.00	92.00	35.25	102.50	0.04	0.84	57.75	1.25	
9	WILLIAMS	3271.90	19.00	87.25	30.00	103.75	0.05	1.03	54.60	1.25	
7	CUTLER 71	3121.46	19.00	87.50	49.75	144.00	0.09	1.44	62.80	1.25	
14	COLUMBUS	3059.36	20.75	95.50	45.25	135.25	0.07	1.08	66.27	1.50	
2	WOODWORTH	2950.59	19.00	72.50	15.75	68.50	0.03	0.70	53.40	2.00	
5	HILL	2946.01	31.50	92.00	21.25	60.75	0.05	0.69	47.55	2.00	
4	RANSOM	2941.00	27.25	128.00	27.75	280.00	0.10	2.22	50.55	1.00	
6	PICKETT 71	2880.99	29.00	131.00	19.75	79.00	0.06	1.04	45.30	1.00	
13	FORREST	2776.39	29.00	114.00	53.00	142.25	0.19	2.00	52.05	1.00	
12	DAVIS	2739.30	32.25	127.00	72.25	229.25	0.25	2.84	59.10	1.00	
8	BOSSIER	1939.97	29.00	127.00	50.75	145.25	0.17	1.92	52.45	1.00	
348	BRAGG	1652.00	28.00	131.00	39.50	165.75	0.08	1.41	51.35	1.25	
11	COBB	641.79	34.00	132.00	40.50	131.50	0.16	2.52	59.85	1.00	
GRAND MEAN											
STANDARD ERROR OF A VARIETY MEAN											
COEFFICIENT OF VARIATION											
5% LSD VARIETY MEANS (*****=NS)											
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)											
YIELD	KG/HA	1.00	-0.52++	-0.44++	-0.15	0.05	-0.33++	-0.24	-0.04	0.24	
DAYS TO FLOWER		-0.52++	1.00	0.75++	0.26+	0.21	0.43++	0.48++	-0.38++	-0.03	
DAYS TO MATURITY		-0.44++	0.75++	1.00	0.24	0.42++	0.37++	0.52++	-0.26+	-0.57++	
NODULE NUMBER 1		-0.15	0.26+	0.24	1.00	0.43++	0.77++	0.65++	0.25	-0.26+	
NODULE NUMBER 2		0.05	0.21	0.42++	0.43++	1.00	0.32+	0.74++	0.01	-0.37++	
NODULE WEIGHT 1		-0.34++	0.43++	0.77++	0.32+	1.00	0.54++	0.04	-0.29+		
NODULE WEIGHT 2		-0.24	0.48++	0.52++	0.65++	0.74++	1.00	0.03	-0.41++		
PLANT HEIGHT		-0.04	-0.38++	-0.26+	0.25	0.01	0.04	0.03	1.00	-0.03	
LOGGING		0.24	-0.24	-0.57++	-0.26+	-0.37++	-0.29+	-0.41++	-0.03	1.00	
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST		0.16	-0.52++	-0.31+	-0.23	0.07	-0.21	-0.27+	0.21	0.20	
PODS PER PLANT		-0.35++	0.78++	0.58++	0.10	0.07	0.23	0.28+	-0.50++	-0.18	
100 SEED WEIGHT		0.75++	-0.62++	-0.38++	-0.22	0.12	-0.29+	0.12	0.12	0.13	
QUALITY	OP SEED	-0.56++	0.73++	0.83++	0.32+	0.20	0.36++	0.43++	-0.03	-0.41++	

TABLE 178 EXPERIMENT 192 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
15	ESSEX	1.00	276.00	29.90	18.25	2.00	40.1	22.1
1	CALLAND	1.00	282.75	18.35	21.50	2.00	39.5	22.6
10	CLARK 63	1.00	262.00	20.28	19.00	2.00	39.8	25.3
9	WILLIAMS	1.00	270.25	16.10	20.75	1.00	39.2	23.8
7	CUTLER 71	1.00	237.00	18.75	17.00	2.00	40.4	22.2
14	COLUMBUS	1.00	250.25	16.53	17.75	2.00	42.3	22.3
2	WOODWORTH	1.00	303.50	17.20	17.25	1.00	36.7	23.9
5	HILL	1.00	177.75	42.58	15.75	2.00	35.5	24.0
4	RANSOM	1.00	268.75	27.08	19.50	2.00	37.1	25.0
6	PICKETT 71	1.00	212.25	37.65	16.25	3.00	39.3	24.0
13	FORREST	1.00	186.75	44.53	15.50	2.00	38.8	22.9
12	DAVIS	1.00	237.25	25.88	18.00	3.00	40.6	22.8
8	BOSSIER	1.00	141.75	41.88	12.75	3.00	42.3	21.5
3	BRAGG	1.00	281.00	37.18	15.50	3.00	40.1	22.6
11	COBB	1.00	202.00	40.65	11.00	3.25	37.5	24.3
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSE VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)								
YIELD KG/HA	0.00	0.16	-0.35++	0.75++	-0.56++			
DAYS TO FLOWER	0.00	-0.52++	0.78++	-0.62++	0.73++			
DAYS TO MATURITY	0.00	-0.31+	0.58++	-0.38++	0.83++			
NODULE NUMBER 1	0.00	-0.23	0.10	-0.22	0.32+			
NODULE NUMBER 2	0.00	-0.07	0.07	0.12	0.20			
NODULE WEIGHT 1	0.00	-0.21	0.23	-0.29+	0.36++			
NODULE WEIGHT 2	0.00	-0.27+	0.28+	-0.29+	0.43++			
PLANT HEIGHT	0.00	0.21	-0.21	0.12	-0.03			
LODGING	0.00	0.20	-0.18	0.13	-0.41++			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.60++	0.53++	-0.39++			
PODS PER PLANT	0.00	-0.60++	1.00	-0.60++	0.60++			
100 SEED WEIGHT	0.00	0.53++	-0.60++	1.00	-0.58++			
QUALITY OF SEED	0.00	-0.39++	0.56++	-0.58++	1.00			

TABLE 179 EXPERIMENT 293 YEAR 1976

REGION - OCEANIA
 SITE - PORT VILA
 LATITUDE - 17 DEG. 45 MIN. S
 COOPERATOR - CONDOMINIUM DEPARTMENT OF AGRICULTURE
 DATE PLANTED - JUNE 25, 1976
 SOIL TYPE - SAND 10%, SILT 60%, CLAY 20%. PH 6.4
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 30.0
 AMOUNT OF MOISTURE - 462 MM

COUNTRY - NEW HEBRIDES											
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	
1	CALLAND	2580.93	24.00	102.00	0.00	137.00	0.00	3.13	41.10	1.00	
8	JUPITER	2490.50	38.00	109.00	0.00	474.50	0.00	9.13	74.10	4.00	
13	DAVIS	2478.83	38.00	109.00	0.00	245.25	0.00	4.52	44.50	1.00	
10	WILLIAMS	2470.49	24.00	94.00	0.00	258.50	0.00	3.02	36.53	1.00	
16	COLUMBUS	2379.23	24.00	106.50	0.00	222.00	0.00	4.91	40.60	1.00	
11	CLARK 63	2345.47	24.00	99.00	0.00	187.25	0.00	3.12	39.10	1.00	
14	IMPROVED PELICAN	2322.96	38.00	102.00	0.00	299.00	0.00	4.53	55.70	1.00	
15	FORREST	2310.88	38.00	102.00	0.00	254.00	0.00	4.09	36.95	1.00	
3	BRAGG	2231.28	31.00	97.00	0.00	212.00	0.00	2.85	40.40	1.00	
4	RANSOM	2105.84	31.00	109.00	0.00	264.50	0.00	4.18	43.45	1.00	
9	BOSSIER	2100.42	24.00	102.00	0.00	315.75	0.00	5.79	30.30	1.00	
7	CUTLER 71	2094.59	24.00	108.00	0.00	211.75	0.00	3.03	42.00	1.00	
6	PICKETT 71	1977.48	31.00	102.00	0.00	223.50	0.00	3.19	28.45	1.00	
2	WOODWORTH	1924.55	24.00	90.00	0.00	172.00	0.00	2.20	35.05	1.00	
5	HILL	1903.71	38.00	88.00	0.00	174.50	0.00	2.79	30.40	1.00	
12	COBB	1413.62	31.00	102.00	0.00	211.75	0.00	4.35	37.90	1.00	
GRAND MEAN		2195.67	30.13	101.34	0.00	241.45	0.00	4.05	41.03	1.19	
STANDARD ERROR OF A VARIETY MEAN		81.19	0.00	0.38	0.00	27.53	0.00	0.47	1.99	0.00	
COEFFICIENT OF VARIATION		7.40%	0.00%	0.74%	0.00%	22.80%	0.00%	23.38%	9.70%	0.00%	
5% LSD VARIETY MEANS (*****=NS)		231.25	0.00	1.07	0.00	78.41	0.00	1.35	5.67	0.00	
CORRELATIONS (* - PROB=.05 ** - PROB=.01)											
YIELD KG/HA	1.00	0.00	0.24	0.00	0.23	0.00	0.22	0.22	0.41++	0.23	
DAYS TO FLOWER	0.00	1.00	0.13	0.00	0.34++	0.00	0.32++	0.32++	0.38++	0.34++	
DAYS TO MATURITY	0.24	0.13	1.00	0.00	0.38++	0.00	0.51++	0.47++	0.31+	0.31+	
NODULE NUMBER 1	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.23	0.34++	0.34++	0.00	1.00	0.00	0.88++	0.64++	0.67++	0.67++	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.22	0.32++	0.51++	0.00	0.88++	0.00	1.00	0.67++	0.72++	0.72++	
PLANT HEIGHT	0.41++	0.38++	0.47++	0.00	0.64++	0.00	0.67++	0.67++	0.76++	0.76++	
LODGING	0.23	0.34++	0.31+	0.00	0.67++	0.00	0.72++	0.72++	1.00	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.47++	-0.02	0.14	0.00	0.09	0.00	-0.01	0.06	0.02	0.02	
PODS PER PLANT	0.18	0.35++	0.23	0.00	0.39++	0.00	0.44++	0.58++	0.34++	0.34++	
100 SEED WEIGHT	0.21	-0.40++	0.30+	0.00	0.03	0.00	0.06	0.08	0.13	0.13	
QUALITY OF SEED	-0.06	0.24	0.59++	0.00	0.21	0.00	0.37++	0.37++	0.20	0.20	

TABLE 179 EXPERIMENT 293 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
1	CALLAND	1.00	293.00	13.20	22.91	2.00	45.8	19.9
8	JUPITER	1.00	267.00	21.25	20.89	3.25	44.5	21.6
13	DAVIS	1.00	281.50	15.68	20.42	4.75	45.6	23.3
10	WILLIAMS	1.00	296.50	12.45	21.90	1.00	43.9	21.7
16	COLUMBUS	1.00	278.75	19.65	19.96	3.00	46.3	21.4
11	CLARK 63	1.00	195.50	14.43	18.75	1.00	45.1	20.3
14	IMPROVED PELICAN	1.00	242.50	24.25	16.45	1.00	45.8	21.3
15	FORREST	1.00	272.25	15.20	18.43	1.00	41.9	23.1
3	BRAGG	1.00	290.25	15.70	22.19	1.00	44.6	21.0
4	RANSOM	1.00	289.50	15.03	20.16	5.00	44.3	26.2
9	BOSSIER	1.00	254.50	15.23	20.27	1.00	45.9	21.3
7	CUTLER 71	1.00	275.00	13.25	21.47	2.50	43.4	22.4
6	PICKETT 71	1.00	253.00	13.40	19.91	1.00	45.5	22.3
2	WOODWORTH	1.00	258.75	14.23	18.13	1.00	43.5	21.7
5	HILL	1.00	251.75	14.80	17.38	2.00	41.7	21.3
12	COBB	1.00	218.75	13.55	20.53	3.75	44.8	22.8
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
PLANT	0.00	0.47**	0.18	0.21	-0.06			
DAY TO FLOWER	0.00	-0.02	0.35++	-0.40++	0.24			
DAY TO MATURITY	0.00	0.14	0.23	0.30++	0.59++			
ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00			
ODULE NUMBER 2	0.00	0.09	0.39++	0.03	0.21			
ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00			
ODULE WEIGHT 2	0.00	-0.01	0.44++	0.08	0.37++			
PLANT HEIGHT	0.00	0.06	0.58++	0.06	0.31+			
LODGING	0.00	0.02	0.34++	0.13	0.20			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.23	-0.23	0.38++			
PODS PER PLANT	0.00	-0.23	1.00	-0.31+	0.17			
100 SEED WEIGHT	0.00	0.38++	-0.31+	1.00	0.22			
QUALITY OF SEED	0.00	0.17	0.08	0.22	1.00			

TABLE 180

EXPERIMENT 366 YEAR 1976

REGION - OCEANIA
 SITE - PAPEETE
 LATITUDE - 17 DEG. 30 MIN. S
 COOPERATORS - J.-L. REBOUL, R. YAU-AKUI
 DATE PLANTED - OCTOBER 15, 1976
 SOIL TYPE - SAND 43.2%, SILT 6.5%, CLAY 36.5%, PH 6.6
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 783 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	COUNTRY - TAHITI	
											EL E V AT I O N - 2 M	L O N G I T U D E - 149 DEG. 30 MIN. W
13	DAVIS	5288.14	37.00	113.25	150.25	351.75	0.58	0.00	62.55	4.50		
3	BRAGG	5158.95	31.00	119.00	200.75	368.75	0.59	0.00	54.90	2.25		
4	RANSOM	4833.47	30.25	119.00	169.25	368.75	0.69	0.00	48.15	1.25		
16	COLUMBUS	4682.19	27.00	94.00	200.50	343.50	0.47	0.00	76.35	1.75		
15	FORREST	4681.35	35.00	104.50	173.00	376.75	0.46	0.00	65.30	1.25		
9	BOSSIER	4360.46	31.00	127.00	153.00	351.50	0.58	0.00	43.40	1.25		
1	CALLAND	4164.17	26.50	95.75	149.50	212.75	0.52	0.00	88.35	2.75		
6	PICKETT 71	3926.62	31.00	115.50	59.25	208.25	0.33	0.00	47.05	1.00		
7	CUTLER 71	3901.20	27.00	90.50	158.25	218.00	0.33	0.00	80.20	3.00		
11	CLARK 63	3788.67	27.00	88.75	125.00	186.50	0.28	0.00	79.35	3.00		
5	HILL	3694.49	38.00	94.00	151.75	256.75	0.45	0.00	57.90	2.25		
10	WILLIAMS	3627.81	27.00	87.00	198.00	232.75	0.59	0.00	70.65	1.50		
2	WOODWORTH	3245.23	26.00	82.00	201.25	208.00	0.51	0.00	66.55	2.75		
12	COBB	3158.96	32.50	128.00	191.75	364.75	0.65	0.00	48.10	1.75		
8	JUPITER	2131.68	52.00	159.00	182.00	313.00	0.45	0.00	90.45	3.75		
14	IMPROVED PELICAN	1278.59	45.00	148.50	181.75	414.75	0.40	0.00	141.85	5.00		
GRAND MEAN												
STANDARD ERROR OF A VARIETY MEAN												
COEFFICIENT OF VARIATION												
5% LSD VARIETY MEANS (*****=NS)												
C O R R E L A T I O N S												
(+ - PROB=.05 ++ - PROB=.01)												
YIELD	KG/HA	1.00	-0.51++	-0.41++	0.03	0.09	0.21	0.00	-0.61++	-0.38++		
DAYS TO FLOWER		-0.51++	1.00	0.79++	0.03	0.27+	-0.01	0.00	0.40++	0.41++		
DAYS TO MATURITY		-0.41++	0.79++	1.00	0.06	0.39++	0.10	0.00	-0.23	-0.25++		
NODULE NUMBER 1		0.03	0.03	0.06	1.00	0.69++	0.81++	0.00	0.05	0.09		
NODULE NUMBER 2		0.09	0.27+	0.39++	0.69++	1.00	0.61++	1.00	0.01	0.06		
NODULE WEIGHT 1		0.21	-0.01	0.10	0.81++	0.61++	0.00	0.00	-0.21	-0.04		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00		
PLANT HEIGHT		-0.61++	0.40++	0.23	0.05	0.01	-0.21	0.00	1.00	0.62++		
LODGING		-0.32++	0.41++	0.25+	0.09	0.06	-0.04	0.00	0.62++	1.00		
SHATTER		-0.32++	0.13	0.33++	0.13	0.21	0.16	0.00	-0.11	-0.01		
PLANTS HARVEST		0.59++	-0.59++	-0.53++	-0.07	-0.17	0.08	0.00	-0.42++	-0.17		
PODS PER PLANT		0.09	-0.08	-0.27+	-0.05	-0.05	-0.11	0.00	-0.07	-0.36++		
100 SEED WEIGHT		0.51++	-0.61++	-0.71++	0.16	-0.18	0.12	0.00	-0.24	-0.19		
QUALITY OF SEED		-0.20	0.01	0.25+	0.08	0.15	0.16	0.00	-0.12	-0.12		

TABLE 180 EXPERIMENT 366 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.00	282.25	16.53	20.45	2.00	42.5	21.3
3	BRAGG	1.00	272.50	18.78	20.45	3.25	43.8	21.7
4	RANSOM	1.00	284.50	17.93	21.98	3.50	43.5	21.5
16	COLUMBUS	1.00	233.50	28.02	23.93	1.75	45.9	19.2
15	FORREST	1.00	251.75	28.65	18.95	4.25	43.8	19.3
9	BOSSIER	1.00	235.00	24.70	19.45	4.25	45.6	19.2
1	CALLAND	1.00	274.75	28.03	23.95	3.00	44.6	20.5
6	PICKETT 71	1.00	266.75	16.20	19.83	3.75	45.2	21.2
7	CUTLER 71	1.00	228.75	25.80	25.10	2.50	43.8	20.3
11	CLARK 63	1.00	262.75	19.88	21.40	2.50	45.4	21.2
5	HILL	1.00	243.00	35.03	21.75	2.00	43.3	20.8
10	WILLIAMS	1.00	271.50	20.53	24.70	2.50	43.9	23.1
2	WOODWORTH	1.00	271.50	18.68	22.00	4.00	42.2	21.9
12	COBB	3.00	218.25	25.38	15.85	3.25	39.2	21.7
8	JUPITER	1.25	146.50	18.88	18.65	2.75	45.1	20.8
14	IMPROVED PELICAN	1.25	167.25	18.35	13.00	3.75	45.4	23.1
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.32++	0.59++	0.09	0.51++	-0.20		
DAYS TO FLOWER	0.13	-0.59++	-0.08	-0.61++	0.01			
DAYS TO MATURITY	0.33++	-0.53++	-0.27+	-0.71++	0.25+			
NODULE NUMBER 1	0.13	-0.07	-0.05	0.16	0.08			
NODULE NUMBER 2	0.21	-0.17	-0.05	-0.18	0.15			
NODULE WEIGHT 1	0.16	0.08	-0.11	0.12	0.16			
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT HEIGHT	0.11	-0.42++	-0.07	-0.24	-0.10			
LODGING	0.01	-0.17	-0.36++	-0.19	-0.12			
SHATTER	1.00	-0.25+	0.03	-0.44++	0.13			
PLANTS HARVEST	0.25+	1.00	-0.23	0.37++	0.03			
PODS PER PLANT	0.03	-0.23	1.00	0.13	-0.12			
100 SEED WEIGHT	-0.44++	0.37++	0.13	1.00	-0.39++			
QUALITY OF SEED	0.13	0.03	-0.12	-0.39++	1.00			

TABLE 181 EXPERIMENT 35 YEAR 1976

REGION - OCEANIA HAWAII
 SITE - KAPAA, HAWAII
 LATITUDE - 21 DEG. N
 COOPERATOR - T. SEKIOKA
 DATE PLANTED - MAY 13, 1976
 SOIL TYPE - CLAY, PH 6.8
 FERTILIZER USED (KG/HA) - P 25.0, K 25.0
 AMOUNT OF MOISTURE - 722 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
9	BOSSIER	4771.37	73.50	145.00	159.75	133.75	1.26	2.08	48.75	2.00
3	BRAGG	4562.58	72.00	139.50	109.25	219.00	0.72	2.23	48.00	2.00
15	FORREST	4175.00	73.50	125.00	108.75	199.25	0.69	2.56	56.00	2.25
13	DAVIS	3674.90	56.00	143.00	124.25	152.75	1.41	2.27	63.25	2.25
5	HILL	3435.60	60.50	125.00	74.00	89.50	0.55	1.66	54.00	2.75
6	PICKETT 71	3192.72	66.50	141.75	93.00	116.50	0.53	1.56	40.25	2.00
12	COBB	3075.95	57.75	160.00	77.00	101.75	0.71	1.53	65.25	2.00
1	CALLAND	2967.68	36.00	102.00	80.00	102.50	0.47	1.36	42.75	2.00
7	CUTLER 71	2890.58	42.50	102.00	132.75	197.50	1.35	1.92	40.50	2.50
16	COLUMBUS	2844.74	36.00	108.75	81.25	159.25	0.31	1.31	51.50	2.00
10	WILLIAMS	2652.61	41.00	102.00	90.00	156.50	0.42	1.56	39.25	2.00
14	IMPROVED PELICAN	2606.77	65.25	160.00	64.75	112.00	1.54	1.12	66.75	2.75
11	CLARK 63	2594.69	36.00	102.00	103.25	124.00	0.31	1.64	41.00	2.00
8	JUPITER	2263.79	77.00	165.00	104.50	158.75	1.04	3.80	74.75	4.00
4	RANSOM	1747.43	65.50	141.25	142.00	206.75	0.66	1.91	39.75	2.00
2	WOODWORTH	1572.81	36.00	102.00	66.00	109.75	0.20	1.59	33.00	2.00
GRAND MEAN		3064.70	55.94	129.02	100.66	146.22	0.76	1.88	50.27	2.28
STANDARD ERROR OF A VARIETY MEAN		267.23	3.69	1.59	19.64	31.31	0.30	0.40	3.86	0.15
COEFFICIENT OF VARIATION		17.44%	13.18%	2.46%	39.03%	42.82%	77.90%	42.98%	15.34%	12.97%
5% LST VARIETY MEANS (*****=NS)		761.19	10.50	4.51	55.95	*****	0.84	1.15	10.99	0.42
CORRELATIONS (* - PROB=.05 ++ - PROB=.01)										
YIELD KG/HA	1.00	0.35++	0.15	0.24	0.11	0.19	0.04	0.20	-0.21	
DAY TO FLOWER	0.35++	1.00	0.75++	0.25+	0.42++	0.38++	0.42++	0.31+		
DAY TO MATURITY	0.15	0.75++	1.00	0.07	-0.02	0.35++	0.26+	0.64++	0.39++	
NODULE NUMBER 1	0.24	0.25+	0.07	1.00	0.49++	0.47++	0.19	-0.16	-0.16	
NODULE NUMBER 2	0.11	0.25+	-0.02	0.49++	1.00	0.26+	0.58++	-0.15	-0.08	
NODULE WEIGHT 1	0.19	0.42++	0.35++	0.47++	0.26+	1.00	0.22	0.22	0.07	
NODULE WEIGHT 2	0.04	0.38++	0.26+	0.19	0.58++	0.22	1.00	0.18	0.30+	
PLANT HEIGHT	0.20	0.42++	0.64++	-0.15	-0.15	0.22	0.18	1.00	0.55++	
LOGGING	-0.21	0.31+	0.39++	-0.16	-0.08	0.07	0.30+	0.55++	1.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.33++	-0.05	-0.33++	-0.00	0.04	-0.23	-0.07	-0.38++	-0.37++	
PODS PER PLANT	0.59++	0.27+	0.03	0.29+	0.06	0.26+	-0.07	0.06	-0.22	
100 SEED WEIGHT	0.33++	-0.24	-0.34++	0.27+	-0.22	0.10	0.12	-0.27+	-0.29+	
QUALITY OF SEED	0.14	-0.34++	-0.44++	0.21	0.19	-0.21	-0.14	-0.53++	-0.74++	

TABLE 182 EXPERIMENT 35 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	BOSSIER	1.00	207.75	26.10	22.85	3.00	42.6	20.6
3	BRAGG	1.00	283.50	17.65	24.29	3.00	41.6	21.2
15	FORREST	1.00	266.25	27.75	18.30	3.00	39.4	22.9
13	DAVIS	1.00	218.75	18.50	22.04	3.00	39.8	23.0
6	HILL	1.00	321.50	20.55	19.45	2.00	40.5	20.3
6	PICKETT 71	1.00	251.50	17.43	19.67	3.00	41.7	21.8
12	COBB	1.00	185.00	17.15	21.29	3.00	38.8	22.4
1	CALLAND	1.00	212.50	13.88	24.26	3.00	45.1	20.1
7	CUTLER 71	1.00	232.00	20.00	23.75	3.00	45.3	21.0
16	COLUMBUS	1.00	210.50	19.80	21.13	3.00	42.6	22.1
10	WILLIAMS	1.00	228.00	10.85	23.70	3.00	43.7	21.0
14	IMPROVED PELICAN	1.00	145.50	14.65	16.00	2.00	43.5	20.8
11	CLARK 63	1.00	250.50	16.47	21.95	3.00	45.1	21.4
8	JUPITER	1.00	106.75	10.15	20.41	2.00	43.2	21.3
4	RANSOM	1.00	246.00	19.05	19.34	3.00	39.7	23.4
2	WOODWORTH	1.00	194.75	11.43	19.13	3.00	44.6	21.5
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% 1ST VARIETY MEANS (*****=NS)								
CORRELATIONS (* - PROB=.05 ** - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER 0.00								
DAYS TO MATURITY 0.00								
NODULE NUMBER 1 0.00								
NODULE NUMBER 2 0.00								
NODULE WEIGHT 1 0.00								
NODULE WEIGHT 2 0.00								
PLANT HEIGHT 0.00								
LODGING 0.00								
SHATTER 1.00								
PLANTS HARVEST 0.00								
PODS PER PLANT 0.00								
100 SEED WEIGHT 0.00								
QUALITY OF SEED 0.00								

TABLE 182 EXPERIMENT 298 YEAR 1976

REGION - OCEANIA
 SITE - KAPAA, HAWAII
 LATITUDE - 21 DEG. N
 COOPERATOR - TERRY T. SEKIOKA
 DATE PLANTED - SEPTEMBER 1, 1976
 DATE HARVESTED - DECEMBER, 1976
 SOIL TYPE - CLAY, PH 6.7
 FERTILIZER USED (KG/HA) - P 25.0, K 25.0
 AMOUNT OF MOISTURE - 403 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
14	IMPROVED PELICAN	1959.98	45.00	99.00	62.00	114.00	0.12	0.67	44.00	2.25
5	HILL	1665.33	48.00	89.25	102.50	111.25	0.12	0.54	28.75	2.00
8	JUPITER	1644.08	44.75	103.00	118.75	216.25	0.16	0.94	55.50	4.00
15	FORREST	1389.86	46.75	90.25	91.00	134.50	0.10	0.55	26.25	2.00
11	CLARK 63	1316.93	41.25	89.25	74.00	71.25	0.08	0.45	28.00	3.00
13	DAVIS	1308.59	48.50	92.00	73.25	120.25	0.10	0.46	25.25	1.75
1	CALLAND	1218.58	42.25	91.50	64.50	92.50	0.09	0.68	30.25	3.00
9	BOSSIER	1194.82	41.25	90.00	71.75	124.25	0.08	0.80	23.00	1.50
6	PACKETT 71	1141.48	40.75	91.50	74.25	160.00	0.09	0.82	21.75	1.50
3	BRAGG	1120.22	40.75	90.00	25.00	121.50	0.03	0.48	24.00	1.50
16	COLUMBUS	1113.14	40.50	90.50	47.75	97.50	0.05	0.44	24.50	2.75
10	WILLIAMS	1103.97	40.75	89.50	89.75	106.50	0.08	0.58	23.75	2.75
2	WOODWORTH	1086.47	41.25	86.50	48.00	47.25	0.04	0.23	25.75	3.00
7	CUTLER 71	995.20	41.00	89.50	76.25	71.25	0.05	0.21	24.75	3.25
4	RANSOM	992.28	41.00	90.25	42.00	151.00	0.03	0.49	21.00	1.50
12	COBB	903.93	44.50	92.00	54.50	62.25	0.09	0.45	20.25	1.25
GRAND MEAN										
		1259.68	43.02	91.50	69.70	112.59	0.08	0.55	27.92	2.31
STANDARD ERROR OF A VARIETY MEAN										
		122.81	0.98	0.77	13.55	20.88	0.03	0.14	1.99	0.21
COEFFICIENT OF VARIATION										
		19.50%	4.54%	1.68%	38.87%	37.09%	63.87%	50.31%	14.23%	18.37%
5% LSD VARIETY MEANS (*****=NS)										
C O R R E L A T I O N S										
							(+ - PROB=.05	++ - PROB=.01)		
YIELD KG/HA										
		1.00	0.44++	0.49++	0.54++	0.43++	0.51++	0.42++	0.58++	0.17
DAYS TO FLOWER										
		0.44++	1.00	0.27+	0.43++	0.26+	0.50++	0.23	0.29+	-0.10
DAYS TO MATURITY										
		0.49++	0.27+	1.00	0.29+	0.40++	0.40++	0.28+	0.80++	0.25+
NODULE NUMBER 1										
		0.54++	0.43++	0.29+	1.00	0.50++	0.78++	0.36++	0.26+	0.26+
NODULE NUMBER 2										
		0.43++	0.26+	0.40++	0.50++	1.00	0.55++	0.83++	0.34++	-0.01
NODULE WEIGHT 1										
		0.51++	0.50++	0.40++	0.78++	0.55++	1.00	0.63++	0.41++	0.13
NODULE WEIGHT 2										
		0.42++	0.23	0.28+	0.45++	0.83++	0.63++	1.00	0.26+	-0.05
PLANT HEIGHT										
		0.58++	0.29+	0.80++	0.36++	0.34++	0.41++	0.26+	1.00	0.46++
LOGGING										
		-0.10	0.26+	-0.01	0.13	-0.01	0.13	-0.05	0.46++	1.00
SHATTER										
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST										
		0.50++	0.24	0.03	0.37++	0.23	0.27+	0.30+	0.25+	0.25+
PODS PER PLANT										
		0.56++	0.39++	0.45++	0.26+	0.24	0.14	0.39++	0.06	0.06
100 SEED WEIGHT										
		-0.10	-0.35++	-0.10	0.04	0.02	0.05	0.11	-0.09	0.11
QUALITY OF SEED										
		-0.30+	-0.10	-0.29+	0.08	-0.01	-0.03	0.04	-0.21	0.16

TABLE 182 EXPERIMENT 298

YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
14	IMPROVED PELICAN	1.00	231.25	13.48	15.35	2.00	45.4	19.7
5	HILL	1.00	319.00	9.02	16.80	3.00	41.7	21.6
8	JUPITER	1.00	276.00	12.28	19.61	3.00	43.3	20.8
15	FORREST	1.00	232.50	10.95	16.62	3.00	41.6	21.5
11	CLARK 63	1.00	293.75	7.82	17.91	3.00	43.2	22.2
13	DAVIS	1.00	246.75	10.85	17.81	3.00	43.9	21.4
1	CALLAND	1.00	257.25	5.12	20.86	4.00	45.3	20.2
9	BOSSIER	1.00	209.00	9.02	20.04	3.00	45.6	20.6
6	PICKETT 71	1.00	215.25	7.95	18.83	3.00	45.2	21.5
3	BRAGG	1.00	240.75	9.15	19.87	2.75	42.4	22.7
16	COLUMBUS	1.00	230.75	7.77	17.37	3.00	44.4	21.6
10	WILLIAMS	1.00	249.75	5.92	20.65	3.00	43.3	22.1
2	WOODWORTH	1.00	254.25	8.12	19.57	3.00	43.5	21.5
7	CUTLER 71	1.00	203.00	8.92	20.40	3.00	44.4	21.6
4	RANSOM	1.00	232.75	7.20	17.45	3.00	41.8	22.8
12	COBB	1.00	210.75	8.97	19.43	3.00	42.4	21.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS (*+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	0.00	0.50++	0.56++	-0.10	-0.30+		
DAYS TO FLOWER		0.00	0.24	0.39++	-0.35++	-0.10		
DAYS TO MATURITY		0.00	0.03	0.45++	-0.10	-0.29+		
ODULE NUMBER 1		0.00	0.37++	0.26+	0.04	0.08		
ODULE NUMBER 2		0.00	0.23	0.26+	0.02	-0.01		
ODULE WEIGHT 1		0.00	0.27+	0.24	-0.05	-0.03		
ODULE WEIGHT 2		0.00	0.27+	0.14	0.11	0.04		
PLANT HEIGHT		0.00	0.30+	0.39++	-0.09	-0.21		
LODGING		0.00	0.25+	0.06	0.11	0.16		
SHATTER		1.00	0.00	0.00	0.00	0.00		
PLANTS HARVEST		0.00	1.00	0.08	-0.04	0.18		
PODS PER PLANT		0.00	0.08	1.00	-0.15	-0.15	-0.48++	
100 SEED WEIGHT		0.00	-0.04	-0.15	1.00	0.41++		
QUALITY OF SEED		0.00	0.18	-0.48++	0.41++	1.00		

TABLE 183 EXPERIMENT 378 YEAR 1976

REGION - OCEANIA	COUNTRY - UNITED STATES
SITE - KAUAI, HAWAII	ELEVATION - 550 M.
LATITUDE - 22 DEG. N	LONGITUDE - 159 DEG. 30 MIN.
COOPERATOR - UNIVERSITY OF HAWAII,	KAUAI BRANCH STATION
DATE PLANTED - JANUARY 6, 1977	DATE HARVESTED - APRIL, 1977
FERTILIZER USED (KG/HA) - P 25-0-	K 25-0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA		DAYS TO FLOWER		DAYS TO MATURITY		NODULE NUMBER 1		NODULE NUMBER 2		NODULE WEIGHT 1		NODULE WEIGHT 2		PLANT HEIGHT		LOGGING	
		8	JUPITER	1737.43	40.00	107.00	87.75	217.25	0.35	1.00	49.00	49.00	1.00	49.00	49.00	1.00	2.50	2.50	
1	CALLAND	1365.69	41.25	95.75	48.75	86.25	0.32	0.65	26.50	26.50	3.00	26.50	26.50	3.00	3.00	3.00	3.00		
5	HILL	1269.84	39.00	92.50	33.75	120.00	0.18	0.59	20.75	20.75	2.25	20.75	20.75	2.25	2.25	2.25	2.25		
13	DAVIS	1030.21	39.75	92.25	54.25	108.50	0.26	0.45	27.00	27.00	2.25	27.00	27.00	2.25	2.25	2.25	2.25		
15	FORREST	932.27	39.00	92.50	61.75	119.00	0.29	0.54	19.25	19.25	2.25	19.25	19.25	2.25	2.25	2.25	2.25		
10	WILLIAMS	895.60	40.50	92.25	52.75	140.25	0.25	0.56	20.50	20.50	2.75	20.50	20.50	2.75	2.75	2.75	2.75		
11	CLARK 63	843.09	39.25	92.25	72.50	126.50	0.34	0.74	20.50	20.50	2.75	20.50	20.50	2.75	2.75	2.75	2.75		
14	IMPROVED PELICAN	833.08	41.25	92.25	19.50	77.25	0.07	0.46	23.25	23.25	2.50	23.25	23.25	2.50	2.50	2.50	2.50		
4	RANSOM	723.06	40.25	92.25	68.25	151.25	0.34	0.81	20.25	20.25	2.25	20.25	20.25	2.25	2.25	2.25	2.25		
3	BRAGG	713.06	39.50	92.25	39.00	98.50	0.15	0.61	21.50	21.50	3.00	21.50	21.50	3.00	3.00	3.00	3.00		
6	PICKETT 71	700.97	40.75	92.25	43.75	118.25	0.18	0.55	16.50	16.50	2.75	16.50	16.50	2.75	2.75	2.75	2.75		
2	WOODWORTH	694.72	40.75	92.25	44.00	95.00	0.23	0.40	19.50	19.50	2.50	19.50	19.50	2.50	2.50	2.50	2.50		
16	COLUMBUS	681.39	41.00	92.25	51.00	111.75	0.29	0.68	21.50	21.50	3.00	21.50	21.50	3.00	3.00	3.00	3.00		
7	CUTLER 71	624.29	41.25	92.50	43.00	101.50	0.16	0.46	21.50	21.50	3.00	21.50	21.50	3.00	3.00	3.00	3.00		
9	BOSSIER	535.11	40.50	92.25	47.75	105.00	0.21	0.36	21.00	21.00	2.75	21.00	21.00	2.75	2.75	2.75	2.75		
12	COBB	511.35	40.50	92.25	56.25	97.75	0.15	0.36	19.75	19.75	2.75	19.75	19.75	2.75	2.75	2.75	2.75		
GRAND MEAN		880.70	40.28	93.44	51.50	117.13	0.23	0.58	23.02	23.02	2.63	23.02	23.02	2.63	2.63	2.63	2.63		
STANDARD ERROR OF A VARIETY MEAN		164.04	0.60	0.89	9.00	14.37	0.05	0.11	1.18	1.18	0.24	1.18	1.18	0.24	0.24	0.24	0.24		
COEFFICIENT OF VARIATION		37.25%	2.99%	1.91%	34.97%	24.54%	40.05%	37.33%	10.26%	10.26%	18.07%	3.36	3.36	18.07%	3.36	3.36	18.07%		
5% LSD VARIETY MEANS (**NS=NS)		467.26	*****	2.54	25.65	40.94	0.13	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31		
CORRELATIONS																			
(+ - PROB=.05 ++ - PROB=.01)																			
YIELD	KG/HA	1.00	-0.33++	-0.33++	0.67++	0.47++	0.34++	0.48++	0.47++	0.47++	0.51++	0.44++	0.40++	0.40++	0.46++	0.46++	0.51++	0.51++	
DAYS TO FLOWER	-0.33++	1.00	-0.14	-0.44++	-0.44++	-0.01	-0.01	-0.07	-0.07	-0.07	-0.31+	-0.39++	-0.39++	-0.39++	-0.31+	-0.31+	-0.35++	-0.35++	
DAYS TO MATURITY	0.67++	-0.14	1.00	-0.19	-0.19	0.19	0.19	0.19	0.19	0.19	0.74++	0.30+	0.30+	0.30+	0.30+	0.30+	0.85++	0.85++	
NODULE NUMBER 1	0.47++	-0.44++	-0.44++	1.00	-0.51++	-0.51++	-0.51++	-0.51++	-0.51++	-0.51++	0.76++	0.76++	0.76++	0.76++	0.76++	0.76++	0.47++	0.47++	
NODULE NUMBER 2	0.34++	0.01	0.51++	0.51++	1.00	0.30+	0.30+	0.30+	0.30+	0.30+	0.66++	0.66++	0.66++	0.66++	0.66++	0.66++	0.47++	0.47++	
NODULE WEIGHT 1	0.48++	-0.40++	-0.40++	0.31+	0.74++	0.74++	0.74++	0.74++	0.74++	0.74++	0.00	0.00	0.00	0.00	0.00	0.00	0.47++	0.47++	
NODULE WEIGHT 2	0.47++	-0.07	0.46++	0.46++	0.19	0.76++	0.76++	0.76++	0.76++	0.76++	0.00	0.00	0.00	0.00	0.00	0.00	0.37++	0.37++	
PLANT HEIGHT	0.51++	0.03	0.85++	0.85++	0.30+	0.47++	0.47++	0.47++	0.47++	0.47++	0.22	0.37++	0.37++	0.37++	0.37++	0.37++	0.17	0.17	
LOGGING	0.04	0.04	0.00	0.00	-0.06	-0.06	-0.03	-0.03	-0.03	-0.03	0.00	0.12	0.12	0.12	0.12	0.12	-0.17	-0.17	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.53++	-0.16	0.19	0.19	0.30+	0.30+	0.30+	0.30+	0.30+	0.30+	0.22	0.28+	0.28+	0.28+	0.28+	0.28+	-0.03	-0.03	
PODS PER PLANT	0.64++	-0.31+	0.31+	0.31+	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.37++	0.37++	0.37++	0.37++	0.37++	0.03	0.03	
100 SEED WEIGHT	0.06	0.14	0.12	0.12	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	0.23	0.09	0.09	0.09	0.09	0.09	0.21	0.21	
QUALITY OF SEED	0.31+	0.31+	0.01	0.01	-0.27+	-0.27+	-0.27+	-0.27+	-0.27+	-0.27+	0.20	-0.09	-0.09	-0.09	-0.09	-0.09	0.05	0.05	

TABLE 183 EXPERIMENT 378 YEAR 1976

(CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
8	JUPITER	3.00	274.75	10.05	19.10	3.00	44.9
1	CALLAND	3.00	298.00	7.55	22.21	4.00	44.4
5	HILL	3.00	276.75	10.63	17.22	3.00	41.5
13	DAVIS	3.00	272.25	9.72	16.82	3.00	41.5
15	FORREST	3.00	250.00	8.57	16.88	3.00	43.3
10	WILLIAMS	3.00	285.50	6.02	20.47	3.00	42.7
11	CLARK 63	3.00	289.00	6.70	18.06	3.00	44.0
14	IMPROVED PELICAN	3.00	231.25	8.35	17.19	4.00	42.6
4	RANSOM	3.00	239.25	7.05	17.43	3.00	45.9
3	BRAGG	3.00	249.00	6.02	21.04	3.00	40.7
6	PICKETT 71	3.00	216.75	8.45	17.60	3.00	42.6
2	WOODWORTH	3.00	248.75	6.12	17.47	3.00	44.1
16	COLUMBUS	3.00	211.75	6.97	20.10	3.00	42.0
7	CUTLER 71	3.00	211.75	5.62	21.68	4.00	44.4
9	BOSSIER	3.00	188.75	6.72	19.08	3.00	44.5
12	COBB	3.00	215.75	4.97	20.01	3.00	46.6
GRAND MEAN							
	STANDARD ERROR OF A VARIETY MEAN	0.00	14.45	1.08	0.69	0.00	0.00
	COEFFICIENT OF VARIATION	0.00%	11.68%	28.96%	7.30%	0.00%	0.00
5% LSD VARIETY MEANS (*****=NS)							
CORRELATIONS							
	YIELD	0.00	0.53++	0.64++	0.24	0.06	
	DAYS TO FLOWER	0.00	-0.16	-0.31+	0.14	0.31+	
	DAYS TO MATURITY	0.00	0.19	0.31+	0.12	0.01	
	NODULE NUMBER 1	0.00	0.30+	0.26+	0.21	-0.27+	
	NODULE NUMBER 2	0.00	0.12	0.28+	-0.05	-0.32++	
	NODULE WEIGHT 1	0.00	0.30+	0.24	0.14	-0.20	
	NODULE WEIGHT 2	0.00	0.22	0.37++	0.07	-0.09	
	PLANT HEIGHT	0.00	0.28+	0.23	0.09	0.05	
	LODGING	0.00	-0.03	0.03	0.37++	0.21	
	SHATTER	1.00	0.00	0.00	0.00	0.00	
	PLANTS HARVEST	0.00	1.00	0.32++	0.13	-0.01	
	PODS PER PLANT	0.00	0.32++	1.00	-0.12	-0.06	
	100 SEED WEIGHT	0.00	0.13	-0.12	1.00	0.32++	
	QUALITY OF SEED	0.00	-0.01	-0.06	0.32++	1.00	

TABLE 184 EXPERIMENT 147 YEAR 1976

REGION - SOUTH AMERICA
 SITE - PARANA
 LATITUDE - 31 DEG. 50 MIN. S
 COOPERATOR - RAUL VICENTINI
 DATE PLANTED - NOVEMBER 12, 1976
 SOIL PH - 6.3
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 716 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
4	WILLIAMS	3404.85	25.00	111.25	74.75	162.75	0.05	0.23	63.75	1.00
1	CAILAND	3400.68	26.75	121.75	38.50	126.50	0.02	0.21	63.75	1.00
5	CLARK 63	3359.00	25.00	117.75	49.75	146.25	0.02	0.19	70.00	1.00
2	WOODWORTH	2967.26	25.00	109.00	41.50	117.25	0.01	0.12	57.50	1.00
3	CUTLER 71	2646.36	32.00	133.50	149.50	252.50	0.13	1.21	68.75	1.00
6	WELLS	2646.36	25.00	98.00	87.75	125.00	0.07	0.27	48.75	1.00
7	BESSON	2546.34	25.00	103.50	103.50	118.50	0.04	0.22	48.75	1.00
8	COLUMBUS	1683.67	32.00	141.00	101.75	210.00	0.08	0.47	75.00	1.00
GRAND MEAN		2831.82	26.97	116.97	76.69	157.34	0.05	0.37	62.03	1.00
STANDARD ERROR OF A VARIETY MEAN		190.43	0.62	2.85	11.60	28.23	0.01	0.28	2.09	0.00
COEFFICIENT OF VARIATION		13.45%	4.59%	4.88%	30.25%	35.88%	28.51%	153.02%	6.73%	0.0%
5% LSD VARIETY MEANS (*****NS)		560.06	1.82	8.39	34.11	83.03	0.02	*****	6.14	
CORRELATIONS (* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.46++	-0.40+	-0.36+	-0.10	-0.33	-0.07	0.02	0.00
DAYS TO FLOWER		-0.46++	1.00	0.73++	0.61++	0.57++	0.68++	0.43+	0.43+	0.59++
DAYS TO MATURITY		-0.40+	0.73++	1.00	0.34	0.55++	0.43+	0.40+	0.40+	0.75++
NODULE NUMBER 1		-0.36+	0.61++	0.34	1.00	0.50++	0.94++	0.32	0.19	0.00
NODULE NUMBER 2		-0.10	0.57++	0.55++	0.50++	1.00	0.64++	0.64++	0.50++	0.50++
NODULE WEIGHT 1		-0.33	0.68++	0.43+	0.94++	0.64++	1.00	0.53++	0.28	0.00
NODULE WEIGHT 2		-0.07	0.43+	0.40+	0.32	0.89++	0.53++	1.00	0.31	0.00
PLANT HEIGHT		0.02	0.59++	0.75++	0.19	0.50++	0.28	0.31	1.00	0.00
LOGGING		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.55++	-0.68++	-0.50++	-0.59++	-0.32	-0.57++	-0.21	-0.19	0.00
PODS PER PLANT		-0.26	0.54++	0.71++	0.11	0.36+	0.16	0.19	0.56++	0.00
100 SEED WEIGHT		0.13	0.13	0.13	0.11	0.05	0.13	0.10	-0.10	0.00
QUALITY OF SEED		-0.29	0.49++	0.60++	0.07	0.16	0.13	0.07	0.57++	0.00

TABLE 184 EXPERIMENT 147 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
4	WILLIAMS	1.00	193.75	36.03	18.50	3.00
1	CALLAND	1.00	212.50	39.97	19.80	3.50
5	CLARK 63	1.00	220.25	31.45	17.88	2.50
2	WOODWORTH	1.00	188.75	37.10	17.20	3.00
3	CUTLER 71	1.00	148.50	39.35	20.23	3.50
6	WELLS	1.00	203.25	26.12	17.08	2.00
7	BEESON	1.00	204.00	23.97	18.60	2.00
8	COLUMBUS	1.00	155.00	50.75	16.58	4.00
STANDARD ERROR OF A VARIETY MEAN						
0.00						
STANDARD COEFFICIENT OF VARIATION						
0.00%						
5% LSD VARIETY MEANS (*****=NS)						
27.66						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD	KG/HA	0.00	0.55++	-0.26	0.13	-0.29
DAYS TO FLOWER	0.00	-0.68++	0.54++	0.13	0.49++	
DAYS TO MATURITY	0.00	-0.50++	0.71++	0.13	0.60++	
NODULE NUMBER 1	0.00	-0.59++	0.11	0.11	0.07	
NODULE NUMBER 2	0.00	-0.32	0.36+	0.05	0.16	
NODULE WEIGHT 1	0.00	-0.57++	0.16	0.13	0.13	
NODULE WEIGHT 2	0.00	-0.21	0.19	0.10	0.07	
PLANT HEIGHT	0.00	-0.19	0.56++	-0.10	0.57++	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.44+	-0.22	-0.41+	
PODS PER PLANT	0.00	-0.44+	1.00	0.02	0.55++	
100 SEED WEIGHT	0.00	-0.22	0.02	1.00	-0.16	
QUALITY OF SEED	0.00	-0.41*	0.55++	-0.16	1.00	

TABLE 185 EXPERIMENT 26 YEAR 1976

REGION - SOUTH AMERICA
 SITE - SANTA CRUZ
 LATITUDE - 18 DEG. 39 MIN. S
 COOPERATOR - ALBERTO CASTILLO
 DATE PLANTED - NOVEMBER 11, 1976
 SOIL TYPE - SAND 23%, SILT 54%, CLAY 23%. PH 7.0
 AMOUNT OF MOISTURE - 531 MM
 NUMBER OF IRRIGATIONS - 2
 LOCAL VARIETY - PELICANO

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAY TO FLOWER	DAY TO MATURITY	NOODLE NUMBER 1	NOODLE NUMBER 2	NOODLE WEIGHT 1	NOODLE WEIGHT 2	PLANT HEIGHT	LOGGING
3	BRAGG	5152.70	37.75	103.25	0.00	0.00	0.00	0.00	53.00	1.00
12	COBB	4983.08	40.00	107.75	0.00	0.00	0.00	0.00	70.00	1.25
7	PELICANO	4157.91	60.75	140.25	0.00	0.00	0.00	0.00	89.50	1.75
15	FORREST	3995.38	35.50	99.25	0.00	0.00	0.00	0.00	62.00	1.25
14	IMPROVED PELICAN	3951.21	36.00	105.25	0.00	0.00	0.00	0.00	60.25	1.00
1	CALLAND	3694.07	35.50	105.00	0.00	0.00	0.00	0.00	59.25	1.50
11	CLARK 63	3681.99	35.50	105.00	0.00	0.00	0.00	0.00	57.00	1.00
4	RANSOM	3627.39	38.75	106.25	0.00	0.00	0.00	0.00	56.00	1.50
13	DAVIS	3367.34	59.00	123.75	0.00	0.00	0.00	0.00	130.50	2.50
5	HILL	3302.33	36.00	98.00	0.00	0.00	0.00	0.00	54.25	1.50
16	COLUMBUS	3131.04	63.25	134.25	0.00	0.00	0.00	0.00	117.50	3.00
8	JUPITER	3075.61	34.75	105.00	0.00	0.00	0.00	0.00	55.75	1.00
10	WILLIAMS	2808.06	34.25	98.75	0.00	0.00	0.00	0.00	59.50	1.00
9	BOSSIER	2625.94	34.50	98.00	0.00	0.00	0.00	0.00	54.00	1.25
6	PICKETT 71	2515.92	35.00	97.50	0.00	0.00	0.00	0.00	35.50	1.00
2	WOODWORTH	1754.10	34.00	93.50	0.00	0.00	0.00	0.00	44.25	1.50
GRAND MEAN		3489.00	40.66	107.55	0.00	0.00	0.00	0.00	66.14	1.44
STANDARD ERROR OF A VARIETY MEAN		199.27	0.71	1.74	-0.00	0.00	0.00	0.00	4.16	0.20
COEFFICIENT OF VARIATION		11.42%	3.49%	3.23%	0.00%	0.00%	0.00%	0.00%	12.58%	28.16%
5% LSD VARIETY MEANS (**=NS)		567.61	2.02	4.94	0.00	0.00	0.00	0.00	11.85	0.58
CORRELATIONS (+ - PROB=.05 +* - PROB=.01)										
YIELD	KG/HA	1.00	0.12	0.23	0.00	0.00	0.00	0.00	0.16	-0.10
DAY TO FLOWER		0.12	1.00	0.94++	0.00	0.00	0.00	0.00	0.86++	-0.72++
DAY TO MATURITY		0.23	0.94++	1.00	0.00	0.00	0.00	0.00	0.78++	0.61++
NOODLE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NOODLE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NOODLE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NOODLE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		0.16	0.86++	0.78++	0.00	0.00	0.00	0.00	1.00	0.68++
LOGGING		-0.10	0.72++	0.61++	-0.00	0.00	0.00	0.00	0.68++	1.00
SATTER		-0.02	0.87++	0.78++	0.00	0.00	0.00	0.00	0.78++	0.77++
PLANTS HARVEST		0.23	-0.11	-0.11	-0.00	0.00	0.00	0.00	-0.04	0.09
PODS PER PLANT		0.29+	0.66++	0.61++	0.00	0.00	0.00	0.00	0.72++	0.44++
100 SEED WEIGHT		-0.22	-0.05	0.00	0.00	0.00	0.00	-0.12	-0.03	0.00
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 185 EXPERIMENT 26 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
3	BRAGG	1.00	91.50	57.00	21.25	0.00	40.9	22.6
12	COBB	1.25	113.25	55.25	20.25	0.00	36.1	24.2
7	PELICANO	2.00	75.50	86.75	22.85	0.00	--	--
15	FORREST PELICAN	1.00	128.25	48.50	22.23	0.00	38.5	22.8
14	IMPROVED PELICAN	1.00	94.25	63.50	18.18	0.00	39.8	24.4
1	CALLAND	1.00	97.00	36.50	24.95	0.00	41.4	21.5
11	CLARK 63	1.00	98.00	63.50	19.88	0.00	42.3	22.6
4	RANSOM	1.00	99.00	38.50	22.45	0.00	35.8	23.4
13	DAVIS	2.00	96.00	114.25	19.10	0.00	40.3	21.8
5	HILL	1.25	97.50	49.75	19.45	0.00	38.2	21.4
16	COLUMBUS	3.00	90.50	73.00	22.88	0.00	38.5	23.5
8	JUPITER	1.00	92.25	51.25	22.48	0.00	--	--
10	WILLIAMS	1.00	86.50	37.00	21.63	0.00	42.6	22.0
9	BOSSIER	1.25	78.75	32.50	25.60	0.00	43.8	21.2
6	PICKETT 71	1.00	88.75	36.50	22.83	0.00	41.0	22.5
2	WOODWORTH	1.00	83.75	37.75	21.75	0.00	41.6	22.3
STANDARD ERROR OF A VARIETY MEAN COEFFICIENT OF VARIATION								
16.57% (**NS) 0.31 *****NS)								
5% LSD VARIETY MEANS (*****NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA	-0.02	0.23	0.29+	-0.22	0.00			
DAYS TO FLOWER	0.87++	-0.11	0.66++	-0.05	0.00			
PLANT HEIGHT	0.78++	-0.11	0.61++	0.00	0.00			
NODE NUMBER 1	0.00	0.00	0.00	0.00	0.00			
NODE NUMBER 2	0.00	0.00	0.00	0.00	0.00			
NODE WEIGHT 1	0.00	0.00	0.00	0.00	0.00			
NODE WEIGHT 2	0.00	0.00	0.00	0.00	0.00			
PLANT HEIGHT	0.78++	-0.04	0.72++	-0.12	0.00			
LODGING	0.77++	-0.09	0.44++	-0.03	0.00			
SHATTER	1.00	-0.14	0.52++	0.03	0.00			
PLANTS HARVEST	-0.14	1.00	-0.06	-0.10	0.00			
PODS PER PLANT	0.52++	-0.06	1.00	-0.35++	0.00			
100 SEED WEIGHT	0.03	-0.10	-0.35++	1.00	0.00			
QUALITY OF SEED	0.00	0.00	0.00	1.00				

TABLE 186 EXPERIMENT 375 YEAR 1976

REGION - SOUTH AMERICA
 SITE - SANTA CRUZ
 LATITUDE - 17 DEG. 14 MIN. S
 COOPERATORS - H. ZURITA O.,
 COORDINATE PLANTED - DECEMBER 7, 19
 SOIL TYPE - CLAY, PH 6.0
 AMOUNT OF MOISTURE - 958 MM
 SUBSTITUTE VARIETY - ACADIAN
 LOCAL VARIETY - PELICANO

COUNTRY - BOLIVIA
 ELEVATION - 320 M
 LONGITUDE - 63 DEG. 10 MIN. W
 W. FISHER
 DATE HARVESTED - MARCH, 1977

SOIL TYPE - CLAY, PH 6.0
AMOUNT OF MOISTURE - 958 MM
SUBSTITUTE VARIETY - ACADIAN
LOCAL VARIETY - PELICANO

TABLE 186 EXPERIMENT 375 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	189.25	37.23	16.00	2.00
9	BOSSIER	1.00	151.00	38.78	16.75	1.00
8	JUPITER	1.00	158.50	38.10	17.75	2.00
4	RANSOM	1.00	181.75	32.38	17.50	2.00
12	COBB	1.00	149.00	46.10	14.75	2.00
15	FORREST	1.00	162.50	40.93	15.00	1.25
6	PICKETT 71	1.00	176.25	32.85	15.75	2.00
1	CALLAND	1.00	169.75	28.63	17.00	2.00
5	HILL	1.00	171.75	33.68	14.50	1.75
14	IMPROVED PELICAN	1.00	160.50	39.30	13.75	1.50
11	CLARK 63	1.00	179.25	26.33	15.75	1.75
16	ACADIAN	1.00	166.75	38.08	14.75	1.25
3	BRAGG	1.00	183.00	29.40	16.75	1.25
10	WILLIAMS	1.00	173.25	27.25	16.75	1.00
2	WOODWORTH	1.00	183.25	26.83	16.75	2.00
7	PELICANO	1.00	192.50	47.15	13.75	1.25
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSE VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
YIELD	KG/HA	0.00	-0.21	0.32+	0.40++	0.19
DAYS TO FLOWER	0.00	-0.27+	0.38++	-0.24	-0.16	
DAYS TO MATURITY	0.00	-0.26+	0.59++	-0.16	-0.13	
NODULE NUMBER 1	0.00	-0.02	-0.04	0.11	0.07	
NODULE NUMBER 2	0.00	-0.17	0.10	0.10	0.07	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	-0.01	0.40++	-0.28*	-0.14	
LODGING	0.00	0.04	0.47++	-0.22	-0.05	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.38++	-0.07	0.05	
PODS PER PLANT	0.00	-0.38++	1.00	-0.32++	-0.06	
100 SEED WEIGHT	0.00	-0.07	-0.32++	1.00	0.08	
QUALITY OF SEED	0.00	0.05	-0.06	0.08	1.00	

TABLE 187 EXPERIMENT 363 YEAR 1976

REGION - SOUTH AMERICA	COUNTRY - BRAZIL
SITE - JANAUBA	ELEVATION - 510 M
LATITUDE - 15 DEG. S	LONGITUDE - 44 DEG. W
COOPERATOR - BENCHMARK SOILS PROJECT	DATE HARVESTED - MARCH, 1977
DATE PLANTED - NOVEMBER 25, 1976	
SOIL TYPE - SAND 20%, SILT 17%, CLAY 63%, PH 5.8	
FERTILIZER USED (KG/HA) - N 25.0, P 130.0, K 50.0	
AMOUNT OF MOISTURE - 71% MM	
NUMBER OF IRRIGATIONS - 11 (331 MM)	

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	DAVIS	4473.39	30.75	105.50	0.00	0.00	0.00	0.00	64.25	1.00
3	BRAGG	4002.88	26.25	99.25	0.00	0.00	0.00	0.00	49.75	1.00
4	RANSOM	3814.93	24.25	100.50	0.00	0.00	0.00	0.00	37.75	1.00
9	BOSSIER	3512.79	25.50	100.75	0.00	0.00	0.00	0.00	31.50	1.00
15	FORREST	3476.11	29.00	99.25	0.00	0.00	0.00	0.00	54.25	1.00
16	COLUMBUS	3397.35	24.75	85.00	0.00	0.00	0.00	0.00	56.25	1.00
11	CLARK 63	3261.90	24.25	84.00	0.00	0.00	0.00	0.00	57.75	1.50
12	COBB	2941.00	28.75	122.50	0.00	0.00	0.00	0.00	54.50	1.00
7	CUTLER 71	2879.33	26.50	82.00	0.00	0.00	0.00	0.00	59.75	1.00
1	CALLAND	2766.39	24.50	84.00	0.00	0.00	0.00	0.00	52.75	1.00
6	PICKETT 71	2698.04	27.25	98.00	0.00	0.00	0.00	0.00	28.75	1.00
2	WOODWORTH	2654.70	25.00	82.00	0.00	0.00	0.00	0.00	48.75	1.00
5	HILL	2640.94	30.75	90.25	0.00	0.00	0.00	0.00	48.25	1.00
10	WILLIAMS	2597.60	26.00	82.50	0.00	0.00	0.00	0.00	51.50	1.00
14	IMPROVED PELICAN	1178.15	40.75	144.25	0.00	0.00	0.00	0.00	120.75	2.50
8	JUPITER	153.36	47.75	157.00	0.00	0.00	0.00	0.00	101.50	4.00
STANDARD ERROR OF A VARIETY MEAN		GRAND MEAN	2903.05	28.88	101.05	0.00	0.00	0.00	57.34	1.31
COEFFICIENT OF VARIATION		VARIETY MEAN	278.58	0.95	2.14	0.00	0.00	0.00	3.07	0.21
5% 1ST VARIETY MEANS (*****=NS)		VARIATION	19.19%	6.58%	4.23%	0.00%	0.00%	0.00%	10.72%	31.62%
793.52		MEANS	27.71	6.09	0.00	0.00	0.00	0.00	8.76	0.59
CORRELATIONS (* - PROB=.05 ** - PROB=.01)										
YIELD	KG/HA	1.00	-0.67++	-0.58++	0.00	0.00	0.00	0.00	-0.55++	-0.67++
DAYS TO FLOWER		-0.67++	1.00	0.86++	0.00	0.00	0.00	0.00	0.78++	0.85++
DAYS TO MATURITY		-0.58++	0.86++	1.00	0.00	0.00	0.00	0.00	0.69++	0.73++
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
PLANT HEIGHT		-0.55++	0.78++	0.69++	0.00	0.00	0.00	0.00	1.00	0.75++
LODGING		-0.67++	0.85++	0.73++	0.00	0.00	0.00	0.00	0.75++	1.00
SHATTER		-0.30*	0.31+	0.34++	0.00	0.00	0.00	0.00	0.27+	0.16
PLANTS HARVEST		0.36++	-0.06	-0.12	0.00	0.00	0.00	0.00	0.08	-0.04
PODS PER PLANT		-0.51++	0.63++	0.61++	0.00	0.00	0.00	0.00	0.49++	0.45++
100 SEED WEIGHT		0.82++	-0.84++	-0.78++	0.00	0.00	0.00	0.00	-0.76++	-0.78++
QUALITY OF SEED		-0.39++	0.58++	0.75++	0.00	0.00	0.00	0.00	0.46++	0.46++

TABLE 187 EXPERIMENT 363 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
13	DAVIS	1.75	305.50	20.08	19.70	3.25	39.6	23.4
3	BRAGG	1.00	280.50	21.83	19.43	2.50	40.1	23.3
4	RANSOM	1.00	258.50	15.38	19.70	2.75	37.9	25.6
9	BOSSIER	1.00	157.25	27.25	18.50	3.50	42.6	22.1
15	FORREST	1.00	233.25	32.00	14.33	3.50	39.3	22.8
16	COLUMBUS	1.00	202.25	25.30	17.78	2.25	42.0	23.1
11	CLARK 63	1.00	273.75	17.12	16.85	2.25	39.9	23.3
12	COBB	2.25	198.75	26.65	16.15	4.50	38.7	24.9
7	CUTLER 71	1.00	177.25	25.40	17.83	2.25	39.6	23.2
1	CALLAND	1.50	246.25	16.75	18.98	3.00	41.0	22.3
6	PICKETT 71	1.25	164.25	25.30	17.63	1.50	39.8	24.3
2	WOODWORTH	1.25	234.75	19.72	15.75	1.50	37.4	24.3
5	HILL	1.50	228.50	26.45	15.25	2.50	39.0	22.3
10	WILLIAMS	1.00	252.75	17.53	19.55	1.25	42.0	22.8
14	IMPROVED PELICAN	2.25	190.50	38.12	8.00	4.25	42.2	18.8
8	JUPITER	1.25	234.00	38.05	4.00	5.00	43.9	12.6
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSE VARIETY MEANS (*****=NS)								
CORRELATIONS								
(+ - PROB=.05 ++ - PROB=.01)								
YIELD	KG/HA	-0.30+	0.36++	-0.51++	0.82++	-0.39++		
DAYS TO FLOWER		0.31+	-0.06	0.63++	-0.84++	0.58++		
DAYS TO MATURITY		0.34++	-0.12	0.61++	-0.78++	0.75++		
NODULE NUMBER 1		0.00	0.00	0.00	0.00	0.00		
NODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00		
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00		
PLANT HEIGHT		0.27+	-0.08	0.49++	-0.76++	0.46++		
LODGING		0.16	-0.04	0.45++	-0.78++	0.46++		
SHATTER		1.00	-0.21	0.23	-0.21	0.44++		
PLANTS HARVEST		-0.21	1.00	-0.43++	0.18	-0.18		
PODS PER PLANT		0.23	-0.43++	1.00	-0.65++	0.52++		
100 SEED WEIGHT		-0.21	0.18	-0.65++	1.00	-0.56++		
QUALITY OF SEED		0.44++	-0.18	0.52++	-0.56++	1.00		

TABLE 188 EXPERIMENT 646 YEAR 1976

REGION - SOUTH AMERICA
 SITE - MANAUS
 LATITUDE - 3 DEG. 8 MIN. S
 COOPERATOR - F. RAHMAN
 DATE PLANTED - JUNE 30, 1976
 SOIL TYPE - SILT
 FERTILIZER USED (KG/HA) = P 35.0, K 66.0

		COUNTRY - BRAZIL									
ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAY TO FLOWER	DAY TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	
2	HAMPTON 266A	562.86	24.25	79.75	0.00	0.00	0.00	0.00	20.85	1.00	
14	CALLAND	543.86	24.00	82.50	0.00	0.00	0.00	0.00	27.80	1.00	
6	BOSSIER	539.07	24.00	81.25	0.00	0.00	0.00	0.00	20.13	1.00	
13	WILLIAMS	538.86	24.50	76.75	0.00	0.00	0.00	0.00	24.03	1.00	
7	DAVIS	507.39	29.75	80.75	0.00	0.00	0.00	0.00	20.05	1.00	
9	FORREST	498.14	24.25	77.50	0.00	0.00	0.00	0.00	23.80	1.00	
10	COLUMBUS	493.22	24.50	78.75	0.00	0.00	0.00	0.00	21.58	1.00	
12	WOODWORTH	457.38	25.00	73.50	0.00	0.00	0.00	0.00	27.80	1.00	
15	SEMMES	438.42	26.00	77.50	0.00	0.00	0.00	0.00	17.38	1.00	
8	TRACY	399.87	24.25	71.00	0.00	0.00	0.00	0.00	16.60	1.00	
1	JUPITER	399.58	32.00	84.25	0.00	0.00	0.00	0.00	50.30	1.00	
3	HARDEE	373.41	29.75	80.00	0.00	0.00	0.00	0.00	20.13	1.00	
11	CLARK 63	360.78	24.75	79.00	0.00	0.00	0.00	0.00	29.00	1.00	
5	COBB	359.11	26.25	81.75	0.00	0.00	0.00	0.00	17.63	1.00	
4	IMPROVED PELICAN	309.44	24.25	77.50	0.00	0.00	0.00	0.00	17.45	1.00	
		GRAND MEAN	452.09	25.83	78.78	0.00	0.00	0.00	0.00	23.63	1.00
		STANDARD ERROR OF A VARIETY MEAN	72.01	0.78	2.02	0.00	0.00	0.00	0.00	1.98	0.00
		COEFFICIENT OF VARIATION	31.85%	6.07%	5.14%	0.00%	0.00%	0.00%	0.00%	16.77%	0.00%
		5% LSD VARIETY MEANS (*****=NS)	*****	2.24	5.78	0.00	0.00	0.00	0.00	5.66	0.00

(* - PROB=.05 ** - PROB=.01)

CORRELATIONS

YIELD KG/HA	DAY TO FLOWER	DAY TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	-0.19	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.19	1.00	0.30+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.30+	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.10	0.41++	0.42++	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 188 EXPERIMENT 646 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
2	HAMPTON 266A	0.00	107.75	16.65	16.70	2.50
14	CALLAND	0.00	132.00	12.35	20.25	2.00
6	BOSSIER	0.00	112.00	15.58	15.75	1.75
13	WILLIAMS	0.00	93.50	17.03	18.83	1.25
7	DAVIS	0.00	144.25	13.90	15.13	1.50
9	FORREST	0.00	141.25	12.30	15.25	2.75
10	COLUMBUS	0.00	129.50	13.20	16.88	2.00
12	WOODWORTH	0.00	42.50	23.00	15.83	1.75
15	SEMMES	0.00	132.25	12.63	15.75	1.50
8	TRACY	0.00	141.75	10.55	15.63	2.50
1	JUPITER	0.00	117.00	19.70	13.13	2.00
3	HARDEE	0.00	98.00	24.25	13.63	1.00
11	CLARK 63	0.00	23.50	27.88	16.63	2.00
5	COBB	0.00	27.50	24.45	16.25	1.50
4	IMPROVED PELICAN	0.00	137.75	9.77	14.90	1.75
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LIST VARIETY MEANS (*****=NS)						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD	KG/HA	0.00	0.25	-0.05	0.23	-0.09
DAYS TO FLOWER	0.00	0.04	0.12	-0.48++	-0.22	
DAYS TO MATURITY	0.00	-0.22	0.21	-0.07	-0.26+	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00	
PLANT HEIGHT	0.00	-0.15	0.33++	-0.13	0.05	
LODGING	0.00	0.00	0.00	0.00	0.00	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.65++	-0.07	0.28+	
PODS PER PLANT	0.00	-0.65++	1.00	-0.13	-0.26+	
100 SEED WEIGHT	0.00	-0.07	-0.13	1.00	-0.00	
QUALITY OF SEED	0.00	0.28+	-0.26+	-0.00	1.00	

TABLE 189 EXPERIMENT 1 YEAR 1976

REGION - SOUTH AMERICA
 SITE - MANAUS
 LATITUDE - 3 DEG. 8 MIN.
 COOPERATOR - FAZAL RAHMAN
 DATE PLANTED - NOVEMBER 2
 SOIL TYPE - CLAY
 FERTILIZER USED (KG/H.A) -
 LOCAL VARIETY - MANAUS-1

COUNTRY - BRAZIL
ELEVATION - 30 M
LONGITUDE - 60 DEG. 2 MIN. W
DATE HARVESTED - FEBRUARY, 1977
- 0, K 25.0

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
15	MANAUS-1	2217.11	50.00	119.00	69.00	106.00	0.77	1.18	95.12	3.25
7	JUPITER	1373.19	38.00	110.50	79.25	52.50	0.55	0.70	66.45	3.00
5	HILL	1264.88	26.75	74.50	37.25	36.25	0.63	0.67	36.18	1.00
14	FORREST	1100.72	26.00	87.00	39.75	66.00	0.60	1.10	38.80	1.00
9	WILLIAMS	936.65	25.25	85.25	77.50	44.00	1.08	0.88	73.27	1.50
4	RANSOM	816.54	26.75	90.50	57.25	39.75	0.65	0.67	35.25	1.00
2	WOODWORTH	776.20	23.00	75.00	41.75	34.75	0.78	0.63	65.37	1.00
3	BRAGG	745.27	26.00	89.50	62.50	66.50	0.80	0.80	36.78	1.00
12	DAVIS	728.27	26.00	88.75	40.75	46.25	0.90	1.05	34.70	1.00
6	PICKETT 71	641.09	26.00	87.75	31.75	46.25	0.50	0.83	28.30	1.00
8	BOSSIER	559.32	25.25	90.75	45.25	45.25	0.70	0.55	33.08	1.00
16	ESSEX	530.90	23.75	87.00	81.75	42.50	0.82	0.80	29.65	1.00
10	CLARK 63	476.60	23.75	86.00	72.25	33.50	0.95	0.60	71.98	1.50
13	IMPROVED PELICAN	320.73	33.00	98.25	34.25	54.50	0.65	0.90	90.42	2.00
1	CALLAND	271.76	23.75	84.50	56.50	42.00	0.93	0.83	73.98	1.50
11	COBB	230.50	27.75	93.75	32.50	53.00	0.55	0.60	39.75	1.00
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSD VARIETY MEANS (**=*****=NS)										
C O R R E L A T I O N S										
(+ - PROB=.05 ++ - PROB=.01)										
YIELD	KG/HA	1.00	0.53++	0.36++	0.08	0.23	-0.04	0.15	0.18	0.44++
DAYS TO FLOWER		0.53++	1.00	0.86++	0.14	0.44++	-0.11	0.24	0.54++	0.84++
DAYS TO MATURITY		0.36++	0.86++	1.00	0.21	0.47++	-0.13	0.19	0.44++	0.79++
MODULE NUMBER 1		0.08	0.14	0.21	1.00	-0.02	0.49++	-0.09	0.17	0.26++
MODULE NUMBER 2		0.23	0.44++	0.47++	-0.02	1.00	0.05	0.57++	0.19	0.38++
MODULE WEIGHT 1		-0.04	-0.11	-0.13	0.49++	-0.05	1.00	-0.07	-0.15	-0.07
MODULE WEIGHT 2		0.15	0.24	0.19	-0.09	0.57++	0.07	1.00	0.16	0.26++
PLANT HEIGHT		0.18	0.54++	0.44++	0.17	0.19	0.15	0.16	1.00	0.71++
LODGING		0.44++	0.84++	0.79++	0.26+	0.38++	-0.07	0.26+	0.71++	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		-0.05	-0.37++	-0.42++	-0.10	-0.23	-0.05	-0.29++	-0.44++	-0.23
PODS PER PLANT		0.51++	0.85++	0.70++	0.13	0.46++	-0.02	0.23	0.57++	0.71++
100 SEED WEIGHT		-0.32+	-0.35++	-0.05	0.22	-0.01	-0.10	-0.04	-0.33++	-0.19
QUALITY OF SEED		-0.20	-0.04	0.18	0.09	0.12	0.14	-0.01	-0.23	-0.14

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TABLE 189 EXPERIMENT 1 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
15	MANAUS-1	1.00	133.50	119.38	14.53	3.00
7	JUPITER	1.00	104.25	51.43	21.25	2.75
5	HILL	1.00	140.75	36.45	16.00	1.75
14	FORREST	1.00	142.25	48.03	17.05	3.00
9	WILLIAMS	1.00	139.75	39.50	20.13	2.25
4	RANSOM	1.00	143.75	36.25	22.00	3.75
2	WOODWORTH	1.00	138.75	43.63	16.63	2.50
3	BRAGG	1.00	136.50	35.03	21.13	3.25
12	DAVIS	1.00	147.25	40.65	19.88	3.25
6	PICKETT 71	1.00	135.25	33.05	19.75	2.50
8	BOSSIER	1.00	140.75	40.33	20.68	3.75
16	ESSEX	1.00	136.25	33.35	19.60	3.25
10	CLARK 63	1.00	144.25	37.93	19.38	2.75
13	IMPROVED PELICAN	1.00	115.00	52.73	16.45	2.25
1	CALLAND	1.00	146.25	39.20	20.00	3.00
11	COBB	1.00	135.75	43.43	18.75	3.25
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION (%)						
5% LSD VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)						
YIELD KG/HA	0.00	-0.05	0.51++	-0.32+	-0.20	
DAYS TO FLOWER	0.00	-0.37++	0.85++	-0.35++	-0.04	
DAYS TO MATURITY	0.00	-0.42++	0.70++	-0.05	0.18	
ODULE NUMBER 1	0.00	-0.10	0.13	0.22	0.09	
ODULE NUMBER 2	0.00	-0.10	0.46++	-0.01	0.12	
ODULE WEIGHT 1	0.00	0.23	-0.02	0.10	0.14	
ODULE WEIGHT 2	0.00	0.05	0.23	-0.04	-0.01	
PLANT HEIGHT	0.00	-0.29+	0.57++	-0.33++	-0.23	
LODGING	0.00	-0.44++	0.71++	-0.19	-0.14	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	-0.15	-0.03	0.16	
PODS PER PLANT	0.00	-0.15	1.00	-0.53++	0.03	
100 SEED WEIGHT	0.00	-0.03	-0.53++	1.00	0.32++	
QUALITY OF SEED	0.00	0.16	0.03	0.32++	1.00	

TABLE 190 EXPERIMENT 995 YEAR 1976

REGION - SOUTH AMERICA
 SITE - MANAUS
 LATITUDE - 3 DEG. 8 MIN. S
 COOPERATOR - FAZAL DAHMAN
 DATE PLANTED - NOVEMBER 24, 1976
 SOIL TYPE - CLAY, PH 4.8
 FERTILIZER USED (KG/HA) - N 25.0, P 25.0, K 25.0
 AMOUNT OF MOISTURE - 602 MM

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING
8	TGM 256-1-B	1145.02	40.00	94.00	42.50	40.50	0.28	0.50	73.37	1.75
5	TGM 294-4-2371	977.61	40.75	94.00	52.75	108.25	0.30	0.62	70.18	1.25
1	TGM 220-1-2205	763.94	42.00	110.00	28.00	51.75	0.30	0.55	57.90	2.75
3	TGM 255-2-4341	705.93	33.50	101.75	37.50	64.50	0.28	0.63	87.50	2.00
4	TGM 249-4-B	701.89	33.75	101.75	55.00	74.75	0.30	0.65	95.65	1.25
6	TGX 66-5100	511.81	40.00	92.50	32.25	52.50	0.40	0.57	100.38	2.50
2	TGM 210-1-2363	381.91	40.00	103.00	47.75	73.00	0.25	0.52	65.73	1.75
7	TGX 13-3-2644	301.81	33.75	107.00	39.00	70.00	0.25	0.78	95.23	1.25
STANDARD ERROR OF A VARIETY MEAN		686.24	37.97	100.50	41.84	66.91	0.29	0.60	80.74	1.81
STANDARD ERROR OF VARIETY OF VARIATION		209.07	0.18	0.94	8.09	22.34	0.16	0.16	3.34	0.21
5% LSD VARIETY MEANS (*****=NS)		60.93%	0.94%	1.86%	38.69%	66.78%	38.51%	54.29%	8.29%	23.70%
2.76 *****		0.52	2.76 *****	2.76 *****	2.76 *****	2.76 *****	2.76 *****	2.76 *****	2.76 *****	2.76 *****

C O R R E L A T I O N S

(+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
1.00	0.18	0.18	-0.27	0.32	0.04	0.44*	-0.10	-0.10	-0.32	-0.65++	-0.39+	-0.06	
-0.27	-0.25	-0.25	-0.06	-0.01	-0.10	-0.15	-0.15	-0.15	-0.15	-0.19	0.02	0.02	
0.32	-0.06	-0.03	-0.03	-0.05	-0.05	-0.12	0.12	0.12	0.12	-0.19	0.02	-0.36+	
0.04	-0.01	-0.05	0.00	0.31	0.54++	0.16	0.16	0.16	0.16	0.06	-0.31	-0.31	
0.44*	0.10	-0.12	0.54++	0.06	1.00	0.06	0.19	0.19	0.19	0.06	0.06	0.06	
-0.10	-0.15	0.12	0.16	0.73++	0.02	0.02	0.21	0.21	0.21	-0.26	-0.26	-0.26	
-0.32	-0.65++	-0.19	-0.36+	-0.31	-0.08	-0.08	1.00	1.00	1.00	-0.20	-0.20	-0.20	
-0.06	0.39+	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.34	-0.41+	0.03	-0.17	0.12	-0.30	-0.14	-0.14	-0.14	-0.06	-0.06	-0.06	
-0.08	-0.20	0.22	-0.29	-0.11	-0.05	-0.02	0.15	0.15	0.15	0.46++	0.46++	0.46++	
-0.40+	-0.29	0.42+	0.00	0.12	-0.22	0.13	0.19	0.19	0.19	-0.24	-0.24	-0.24	
-0.32	-0.32	0.18	-0.30	-0.31	-0.20	-0.20	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	

TABLE 190 EXPERIMENT 995 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	TGM 256-1-B	1.00	136.50	51.18	11.00	3.00
5	TGM 294-4-2371	1.00	157.25	42.00	16.38	2.50
1	TGM 220-1-2205	1.00	134.75	87.70	15.13	2.50
3	TGM 255-2-4341	1.00	136.50	95.55	13.38	3.50
4	TGM 249-4-B	1.00	136.00	78.18	17.25	3.25
6	TGX 66-5100	1.00	144.00	76.25	14.25	2.75
2	TGM 210-1-2363	1.00	140.75	50.83	16.88	3.50
7	TGX 13-3-2644	1.00	131.00	48.35	19.13	3.25
	GRAND MEAN	1.00	139.59	66.25	15.42	3.03
	STANDARD ERROR OF A VARIETY MEAN	0.00	4.77	5.64	0.66	0.47
	COEFFICIENT OF VARIATION	0.00%	6.83%	17.02%	8.52%	30.89%
	5% LSD VARIETY MEANS (**NS=NS)	0.00	14.03	16.58	1.93	*****
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)						
	YIELD KG/HA	0.00	0.12	-0.08	-0.40+	-0.32
	DAYS TO FLOWER	0.00	0.34	-0.20	-0.29	-0.32
	DAYS TO MATURITY	0.00	-0.41+	0.22	0.42+	0.18
	NODULE NUMBER 1	0.00	-0.03	-0.29	-0.00	-0.36*
	NODULE NUMBER 2	0.00	-0.17	-0.11	0.12	-0.22
	NODULE WEIGHT 1	0.00	0.12	-0.05	-0.22	-0.31
	NODULE WEIGHT 2	0.00	-0.30	-0.02	0.13	-0.20
	PLANT HEIGHT	0.00	-0.14	0.15	0.19	0.24
	LODGING	0.00	-0.06	0.46++	-0.24	-0.20
	SHATTER	1.00	0.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.12	0.06	0.15
	PODS PER PLANT	0.00	-0.12	1.00	-0.19	0.08
	100 SEED WEIGHT	0.00	0.06	-0.19	1.00	0.18
	QUALITY OF SEED	0.00	0.15	0.08	0.18	1.00

TABLE 191 EXPERIMENT 303 YEAR 1976

REGION - SOUTH AMERICA
 SITE - LA PLATINA
 LATITUDE - 33 DEG. 27 MIN. S
 COOPERATOR - H. GELDRES
 DATE PLANTED - OCTOBER 14, 1976
 SOIL TYPE - CLAY LOAM. PH 8.1
 FERTILIZER USED (KG/HA) - P 75.2
 AMOUNT OF MOISTURE - 44 MM
 NUMBER OF IRRIGATIONS - 8

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
6	WELL	4717.19	0.00	134.00	113.00	209.50	1.53	3.26	101.25	0.00
2	WOODWORTH	4517.15	0.00	136.50	60.25	118.75	0.43	1.40	102.50	0.00
7	BEESON	4399.63	0.00	134.00	52.00	94.50	0.76	1.67	96.25	0.00
10	AMSOY 71	4164.58	0.00	134.00	75.75	145.25	0.79	1.74	110.00	0.00
13	STEELE	3883.69	0.00	128.00	86.75	118.50	1.37	1.56	86.25	0.00
9	CORSOY	3864.94	0.00	131.00	180.00	219.00	2.02	2.80	100.00	0.00
1	CALLAND	3819.10	0.00	142.25	67.50	112.50	1.24	1.95	112.50	0.00
4	WILLIAMS	3678.24	0.00	139.50	74.25	99.50	0.77	1.05	110.00	0.00
11	HODGSON	3329.00	0.00	130.75	91.00	113.75	0.92	1.18	75.00	0.00
12	HARK	3171.05	0.00	130.75	111.50	173.50	1.08	1.92	103.75	0.00
5	CLARK 63	2971.01	0.00	142.25	80.00	117.00	0.67	1.39	120.00	0.00
3	CUTLER 71	2743.05	0.00	142.25	128.25	158.25	1.22	1.73	108.75	0.00
6	COLUMBUS	1748.27	0.00	157.00	107.00	134.25	1.09	1.60	110.00	0.00
GRAND MEAN		3615.92	0.00	137.10	94.40	139.56	1.07	1.79	102.79	0.00
STANDARD ERROR OF A VARIETY MEAN		236.18	0.00	2.79	16.12	26.63	0.22	0.35	2.97	0.00
COEFFICIENT OF VARIATION		13.06%	0.00%	4.08%	34.15%	38.16%	40.77%	39.19%	5.79%	0.00%
5% LSD VARIETY MEANS (*****=NS)		677.40	0.00	8.01	46.23	76.37	0.62	8.53	8.53	0.00

C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)

YIELD KG/HA	1.00	0.00	-0.46++	-0.17	0.17	-0.02	0.29+	-0.13	0.00
DAYS TO FLOWER	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAYS TO MATURITY	-0.46++	0.00	1.00	-0.07	-0.12	-0.16	-0.10	0.44++	0.00
MODULE NUMBER 1	-0.17	0.00	-0.07	1.00	0.64++	0.82++	0.53++	-0.01	0.00
MODULE NUMBER 2	0.17	0.00	-0.12	0.64++	1.00	0.48++	0.83++	0.13	0.00
MODULE WEIGHT 1	-0.02	0.00	-0.16	0.82++	0.48++	1.00	0.57++	-0.08	0.00
MODULE WEIGHT 2	-0.29+	0.00	-0.10	0.53++	0.83++	0.57++	1.00	0.13	0.00
PLANT HEIGHT	-0.13	0.00	-0.44++	0.01	0.13	-0.08	0.13	1.00	0.00
LOGGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.49++	0.00	-0.09	-0.28+	-0.06	-0.28+	0.06	-0.01	-0.00
PLANT	0.11	0.00	-0.39++	0.23	-0.01	0.41++	0.18	-0.31+	0.00
PODS PER 100 SEED	0.62++	0.00	-0.59++	-0.23	-0.11	-0.06	-0.07	-0.43++	0.00
QUALITY OF SEED	-0.43++	0.00	0.51++	0.11	0.17	0.04	0.48++	0.00	0.00

TABLE 191 EXPERIMENT 303 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
6 WELLS	0.00	205.50	34.50	16.75	1.50	40.7	21.2	
2 WOODWORTH	0.00	202.75	33.23	16.98	2.00	38.8	21.0	
7 BEESON	0.00	209.75	31.65	18.75	1.50	41.8	18.9	
10 AMSOY 71	0.00	192.25	31.80	18.35	2.25	38.3	20.6	
11 STEELE	0.00	193.00	36.62	18.28	1.25	41.7	19.9	
13 CORSOY	0.00	186.50	41.92	17.08	1.25	41.8	18.9	
9 CALLAND	0.00	204.25	28.58	18.95	2.25	41.2	20.3	
1 WILLIAMS	0.00	204.25	28.08	17.98	1.75	41.0	20.8	
11 HODGSON	0.00	180.00	36.55	20.00	1.00	40.5	20.9	
12 HARK	0.00	180.75	30.75	17.80	2.50	41.1	19.5	
5 CLARK 63	0.00	189.00	28.42	15.23	2.25	41.8	20.5	
3 CUTLER 71	0.00	161.25	28.10	16.35	2.50	39.9	21.0	
8 COLUMBUS	0.00	184.25	32.07	10.83	3.75	43.4	17.5	
GRAND MEAN	0.00	191.81	32.48	17.18	1.98			
STANDARD ERROR OF A VARIETY MEAN	0.00	9.56	3.02	0.46	0.34			
COEFFICIENT OF VARIATION	0.00%	9.97%	18.60%	5.30%	34.73%			
5% LSD VARIETY MEANS (**=NS)	0.00	*****	*****	1.31	0.99			
C O R R E L A T I O N S (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA	0.00	0.49++	0.11	0.62++	-0.43++			
DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00			
DAYS TO MATURITY	0.00	-0.09	-0.39++	-0.59++	0.51++			
NODULE NUMBER 1	0.00	-0.28+	0.23	-0.23	0.11			
NODULE NUMBER 2	0.00	-0.06	-0.01	-0.11	0.17			
NODULE WEIGHT 1	0.00	-0.28+	0.41++	-0.06	0.01			
NODULE WEIGHT 2	0.00	0.06	0.18	-0.07	-0.04			
PLANT HEIGHT	0.00	-0.01	-0.31+	-0.43++	0.48++			
LODGING	0.00	0.00	0.00	0.00	0.00			
SHATTER	1.00	0.00	0.00	0.00	0.00			
PLANTS HARVEST	0.00	1.00	-0.12	0.21	-0.13			
PODS PER PLANT	0.00	-0.12	1.00	0.03	-0.14			
100 SEED WEIGHT	0.00	0.21	0.03	1.00	-0.55++			
QUALITY OF SEED	0.00	-0.13	-0.14	-0.55++	1.00			

TABLE 192

EXPERIMENT 165

YEAR 1976

REGION - SOUTH AMERICA
 SITE - PALMTRA
 LATITUDE - 3 DEG. 32 MIN. N
 COOPERATOR - PROGRAMA LEGUMINOSAS DE GRANO Y OLEAGINOSAS ANUALES
 DATE PLANTED - OCTOBER 19, 1976
 SOIL TYPE - CLAY, PH 6.8
 AMOUNT OF MOISTURE - 234 MM
 NUMBER OF IRRIGATIONS - 3 (35 MM)
 LOCAL VARIETIES - ICA LILY, ICA TUNIA

COUNTRY - COLOMBIA
 ELEVATION - 1008 M
 LONGITUDE - 76 DEG. 17 MIN. W
 DE GRANO Y OLEAGINOSAS ANUALES
 DATE HARVESTED - FEBRUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	C O R R E L A T I O N S				
											PROB=.05	PROB=.01	PROB=.05	PROB=.01	
14	FORREST	2400.48	26.00	79.00	0.00	0.00	0.00	0.00	42.25	1.00	-0.02	-0.12	-0.02	-0.08	
12	DAVIS	2383.81	26.00	81.00	0.00	0.00	0.00	0.00	38.00	1.00	0.73++	0.69++	0.73++	0.69++	
16	ICA TUNIA	2150.43	26.00	84.00	0.00	0.00	0.00	0.00	51.00	1.00	0.46++	0.27+	0.46++	0.27+	
11	COBB	1987.90	25.00	79.00	0.00	0.00	0.00	0.00	33.00	1.00	0.00	0.00	0.00	0.00	
13	IMPROVED PELICAN	1967.06	30.00	80.00	0.00	0.00	0.00	0.00	58.00	1.50	0.00	0.00	0.00	0.00	
15	HILL	1950.39	29.00	79.00	0.00	0.00	0.00	0.00	42.25	2.50	0.00	0.00	0.00	0.00	
5	BRAGG	1892.04	26.00	79.00	0.00	0.00	0.00	0.00	34.50	1.00	0.00	0.00	0.00	0.00	
3	PICKETT 71	1842.03	24.00	80.00	0.00	0.00	0.00	0.00	30.50	1.00	0.00	0.00	0.00	0.00	
6	CALLAND	1821.20	23.00	78.00	0.00	0.00	0.00	0.00	42.50	1.00	0.00	0.00	0.00	0.00	
1	ICA LILY	1796.19	29.00	81.00	0.00	0.00	0.00	0.00	51.75	3.00	0.00	0.00	0.00	0.00	
15	BOSSIER	1629.49	23.00	79.00	0.00	0.00	0.00	0.00	28.25	1.00	0.00	0.00	0.00	0.00	
8	CLARK 63	1579.48	23.00	76.00	0.00	0.00	0.00	0.00	39.75	1.25	0.00	0.00	0.00	0.00	
10	RANSOM	1504.47	24.00	81.00	0.00	0.00	0.00	0.00	32.00	1.00	0.00	0.00	0.00	0.00	
4	WILLIAMS	1487.80	24.00	76.00	0.00	0.00	0.00	0.00	36.50	1.25	0.00	0.00	0.00	0.00	
9	JUPITER	1325.26	30.00	84.00	0.00	0.00	0.00	0.00	74.00	3.00	0.00	0.00	0.00	0.00	
7	WOODWORTH	1108.55	24.00	72.00	0.00	0.00	0.00	0.00	37.25	1.25	0.00	0.00	0.00	0.00	
2		GRAND MEAN	1801.66	25.75	79.25	0.00	0.00	0.00	0.00	41.97	1.42	0.00	0.00	0.00	0.00
		STANDARD ERROR OF A VARIETY MEAN	150.85	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.16	0.00	0.00	0.00	0.00
		COEFFICIENT OF VARIATION	16.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.20%	22.74%	0.00	0.00	0.00	0.00
		5% LSD VARIETY MEANS (****=NS)	429.68	0.00	0.00	0.00	0.00	0.00	6.70	0.46	0.00	0.00	0.00	0.00	0.00

TABLE 192 EXPERIMENT 165 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
14	FORREST	1.25	254.00	24.50	0.00	3.00
12	DAVIS	1.25	296.75	24.75	0.00	4.00
16	ICA TUNIA	1.25	262.25	19.50	0.00	3.00
11	COBB	1.50	261.75	23.00	0.00	3.00
13	IMPROVED PELICAN	2.00	245.00	30.00	0.00	3.00
5	HILL	1.00	306.25	16.00	0.00	3.00
3	BRAGG	1.50	283.50	18.75	0.00	4.00
6	PICKETT 71	2.25	227.50	25.00	0.00	3.00
1	CALLAND	1.50	270.75	16.00	0.00	3.00
15	ICA LILY	1.75	281.25	21.50	0.00	4.00
8	BOSSIER	1.00	221.75	24.50	0.00	3.00
10	CLARK 63	1.50	272.75	18.25	0.00	3.00
4	RANSOM	1.50	252.50	21.00	0.00	4.00
9	WILLIAMS	1.00	252.00	16.75	0.00	3.00
7	JUPITER	1.25	268.75	23.75	0.00	2.00
2	WOODWORTH	2.00	261.50	20.00	0.00	3.00
	GRAND MEAN	1.47	263.64	21.45	0.00	3.19
	STANDARD ERROR OF A VARIETY MEAN	0.32	12.09	2.89	0.00	0.00%
	COEFFICIENT OF VARIATION	43.58%	9.17%	26.91%	0.00%	0.00%
	5% LSD VARIETY MEANS (**=****=NS)	34.45	*****	0.00	0.00	
	C O R R E L A T I O N S		(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)	
	YIELD	KG/HA	-0.29*	0.07	0.25+	0.00
	DAYS TO FLOWER	0.00	0.29+	0.20	0.00	-0.11
	DAYS TO MATURITY	-0.10	0.04	0.21	0.00	-0.01
	ODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
	ODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	ODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	-0.01	0.16	0.15	0.00	-0.43++
	LODGING	-0.08	0.27+	0.05	0.00	-0.20
	SHATTER	1.00	-0.01	-0.03	0.00	0.06
	PLANTS HARVEST	-0.01	1.00	-0.17	0.00	0.22
	PODS PER PLANT	-0.03	-0.17	1.00	0.00	-0.04
	100 SEED WEIGHT	0.00	0.00	0.00	1.00	0.00
	QUALITY OF SEED	0.06	0.22	-0.04	0.00	1.00

TABLE 193 EXPERIMENT 10 YEAR 1976

REGION - SOUTH AMERICA
 SITE - BOLICHE
 LATITUDE - 2 DEG. 21 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 18, 1976
 SOIL TYPE - SAND 10%, SILT 10%. CLAY 80%. PH 6.9
 AMOUNT OF MOISTURE - 100 MM
 NUMBER OF IRRIGATIONS - 5
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NUMBER	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
7	JUPITER	4121.12	46.00	116.00	148.75	173.25	1.08	1.49	93.20	1.75	
16	I.N.I.A.P.-JUPITER	3760.50	46.00	116.00	151.75	1.06	1.42	92.30	2.25		
12	DAVIS	3646.02	30.00	107.00	125.00	254.25	0.83	2.14	37.55	1.00	
15	MANABI	3450.36	30.00	105.00	119.00	196.50	0.65	1.76	90.50	2.75	
1	CALLAND	3405.47	25.50	97.75	83.50	171.25	0.30	1.79	54.30	1.00	
13	IMPROVED PELICAN	3396.05	31.25	103.00	79.25	193.00	0.47	1.23	98.15	3.00	
4	RANSOM	3341.13	29.50	109.00	82.50	165.75	0.29	1.14	38.00	1.00	
3	BRAGG	3338.21	29.50	98.25	61.00	101.50	0.19	0.66	36.90	1.00	
8	BOSSIER	3253.98	27.00	98.25	149.25	157.50	0.43	1.18	52.30	1.00	
11	COBB	3224.14	30.25	109.00	98.00	148.50	0.40	1.18	40.10	1.00	
10	CLARK 63	3179.43	25.50	95.50	86.50	122.00	0.21	1.35	52.00	1.25	
9	WILLIAMS	3175.01	25.50	94.00	122.50	143.75	0.32	1.27	49.30	1.00	
14	FORREST	3155.05	31.00	96.00	79.50	134.00	0.28	0.80	37.95	1.00	
6	PICKETT 71	2986.14	30.75	96.00	115.75	159.00	0.34	1.03	31.20	1.00	
5	HILL	2842.19	30.50	95.25	92.75	133.75	0.36	0.99	38.00	1.00	
2	WOODWORTH	2554.93	25.00	90.00	92.00	104.75	0.34	1.41	44.85	1.00	
378	GRAND MEAN	3301.86	30.83	101.63	105.34	156.91	0.47	1.30	54.16	1.38	
STANDARD ERROR OF A VARIETY MEAN		124.95	0.79	1.09	12.61	29.72	0.07	0.30	2.30	0.13	
COEFFICIENT OF VARIATION		7.57%	5.11%	2.15%	23.94%	37.88%	29.07%	39.23%	8.49%	18.38%	
5% LSD VARIETY MEANS (**=NS)		355.91	2.24	3.12	35.92	***	0.20	0.73	6.55	0.36	
CORRELATIONS											
(* = PROB.=.05 ** = PROB.=.01)											
YIELD	KG/HA	1.00	0.59**	0.68**	0.33**	0.25*	0.53**	0.18	0.51**	0.33**	
DAYS TO	FLOWER	0.59**	1.00	0.76**	0.40**	0.07	0.77**	0.01	0.58**	0.40**	
DAYS TO	MATURITY	0.68**	0.76**	1.00	0.32**	0.24	0.68**	0.14	0.53**	0.41**	
NODULE	NUMBER 1	0.33**	0.40**	0.32**	1.00	0.40**	0.45**	0.24	0.24	0.10	
NODULE	NUMBER 2	0.25*	0.07	0.24	0.40**	1.00	0.36**	0.17	0.19	0.19	
NODULE	WEIGHT 1	0.53**	0.77**	0.68**	0.70**	0.36**	1.00	0.43**	0.58**	0.44**	
NODULE	WEIGHT 2	6.18	0.01	0.14	0.45**	0.78**	0.43**	1.00	0.22	0.12	
PLANT	HEIGHT	0.51**	0.58**	0.53**	0.24	0.17	0.58**	0.22	1.00	0.87**	
LODGING	0.33**	0.40**	0.41**	0.10	0.19	0.44**	0.12	0.87**	1.00	0.00	
SHATTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLANTS	HARVEST	-0.33**	-0.67**	-0.48**	-0.37**	-0.05	-0.63**	-0.10	-0.67**	-0.57**	
PODS PER	PLANT	0.55**	0.64**	0.59**	0.36**	0.30*	0.67**	0.25*	0.83**	0.78**	
100 SEED	WEIGHT	0.47**	0.32*	0.52**	0.25*	0.06	0.28*	0.10	0.10	-0.05	
QUALITY	OF SEED	0.01	-0.23	0.03	0.09	0.20	-0.07	0.24	-0.17	-0.19	

TABLE 193 EXPERIMENT 10 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	161.75	55.25	24.95	1.75	41.3	22.7
16	I.N.I.A.P.-JUPITER	1.00	152.00	58.50	25.33	1.50	39.6	23.3
12	DAVIS	1.00	196.25	28.48	23.03	2.00	43.2	21.6
15	MANABI	1.00	177.00	52.33	24.90	2.25	45.7	19.9
1	CALLAND	1.00	191.00	24.70	24.18	3.50	43.1	20.6
13	IMPROVED PELICAN	1.00	169.75	55.90	18.63	1.00	45.1	21.8
4	RANSOM	1.00	200.00	25.60	23.95	3.00	41.7	23.6
3	BRAGG	1.00	190.25	27.68	25.68	1.75	43.9	22.6
8	BOSSLER	1.00	186.00	28.78	22.90	2.50	44.9	22.2
11	COBB	1.00	190.25	26.23	23.80	1.50	40.9	22.9
10	CLARK 63	1.00	193.25	26.40	21.75	2.50	42.5	22.6
9	WILLIAMS	1.00	189.25	22.38	23.75	2.00	42.5	22.4
14	FORREST	1.00	191.00	30.48	19.10	1.00	41.8	22.1
6	PICKETT 71	1.00	184.25	23.40	22.60	2.00	45.1	21.5
5	HILL	1.00	189.50	24.35	21.35	2.00	41.6	21.8
2	WOODWORTH	1.00	188.50	23.15	19.43	1.00	40.2	23.7
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LST VARIETY MEANS (*****=NS)								
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
PLANT LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 194 EXPERIMENT 44 YEAR 1976

REGION - SOUTH AMERICA
 SITE - PALLATANGA
 LATITUDE - 1 DEG. 59 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 1, 1976
 SOIL TYPE - SAND 31%, SILT 45%, CLAY 24%. PH 6.7
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER
 COUNTRY - ECUADOR
 ELEVATION - 1 M
 LONGITUDE - 78 DEG. 58 MIN. W
 DATE HARVESTED - SEPTEMBER, 1976

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1 WEIGHT	MODULE NUMBER 2 WEIGHT	PLANT HEIGHT	LODGING
16	ESSEX	1389.24	43.00	101.00	82.75	134.75	0.67	1.53	26.30	1.00
14	FORREST	1241.83	44.00	107.00	37.00	73.75	0.32	0.93	32.55	1.00
8	BOSSIER	1192.74	43.00	101.00	68.25	64.50	0.64	1.05	25.20	1.00
1	CALLAND	1185.45	45.00	105.00	30.25	59.00	0.44	0.96	27.30	1.00
11	COBB	1146.56	45.75	101.00	35.00	45.00	0.42	0.80	25.53	1.00
13	IMPROVED PELICAN	1144.02	47.00	109.00	63.25	49.00	0.51	0.81	46.73	1.00
5	HILL	1096.84	47.00	101.00	39.00	43.75	0.41	0.63	33.70	1.00
10	CLARK 63	1020.95	43.20	101.00	74.75	65.25	0.63	1.09	27.45	1.00
12	DAVIS	968.11	47.00	103.00	63.50	87.25	0.63	1.07	25.30	1.00
2	WOODWORTH	939.73	43.00	98.25	55.00	36.25	0.48	0.78	27.13	1.00
6	PICKETT 71	932.56	43.00	97.00	48.75	49.25	0.43	0.91	22.90	1.00
4	RANSOM	873.72	42.00	98.25	84.25	75.25	0.69	0.72	20.93	1.00
3	BRAGG	827.58	43.00	103.00	67.25	80.25	0.48	1.04	26.25	1.00
9	WILLIAMS	769.74	44.00	99.00	68.75	96.25	0.59	1.22	19.55	1.00
15	MANABI	724.31	45.75	106.25	81.00	106.75	0.82	1.43	30.00	1.00
7	I.N.I.A.P.-JUPITER	623.92	47.00	141.00	67.75	111.75	0.63	1.30	67.60	1.00
GRAND MEAN										
STANDARD ERROR OF A VARIETY MEAN										
COEFFICIENT OF VARIATION										
5% LSC VARIETY MEANS (*****=NS)										
CORRELATIONS										
(+ - PROB=.05 + + - PROB=.01)										
YIELD	KG/HA	1.00	-0.14	-0.23	-0.22	-0.11	-0.23	-0.02	-0.02	0.00
DAYS TO FLOWER		-0.14	1.00	0.48++	-0.13	-0.00	0.06	-0.25	0.49++	0.00
DAYS TO MATURITY		-0.23	0.48++	1.00	0.09	0.31+	0.12	0.24	0.87++	0.00
MODULE NUMBER 1		-0.22	-0.13	0.09	1.00	0.40++	0.79++	0.32++	0.01	0.00
MODULE NUMBER 2		-0.11	0.00	-0.31+	-0.40++	1.00	0.44++	0.44++	-0.84++	-0.00
MODULE WEIGHT 1		-0.23	0.06	0.12	0.79++	0.44++	1.00	0.38++	0.01	0.00
MODULE WEIGHT 2		-0.02	0.05	0.24	0.32++	0.84++	0.38++	1.00	0.14	0.00
PLANT HEIGHT		-0.02	0.49++	0.87++	0.01	0.13	0.01	0.14	1.00	0.00
LODGING		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
SHATTER		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST		0.60++	-0.19	-0.35++	-0.28+	-0.35++	-0.33++	-0.22	0.01	0.00
PODS PER PLANT		0.14	0.14	0.32++	0.30+	0.20	0.34++	0.09	-0.23	0.00
100 SEED WEIGHT		-0.20	-0.23	0.15	0.01	0.21	0.04	0.31+	-0.04	0.00
QUALITY OF SEED		-0.08	0.04	0.07	-0.09	0.01	0.26+	0.01	-0.08	0.00

TABLE 194 EXPERIMENT 44 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	ESSEX	1.00	156.75	20.60	12.88	2.00	39.8	20.2
14	PORREST	1.00	172.75	16.53	13.45	1.75	37.6	20.7
8	BOSSIER	1.00	143.00	19.85	13.55	1.25	41.2	19.2
1	CALLAND	1.00	163.75	15.33	16.40	2.75	41.3	19.7
11	COBB	1.00	169.00	19.40	14.38	2.25	37.2	20.3
13	IMPROVED PELICAN	1.00	188.75	17.83	11.98	1.00	40.3	20.2
5	HILL	1.00	184.25	15.68	10.30	1.50	35.7	19.9
10	CLARK 63	1.00	191.00	17.30	14.85	1.75	39.7	21.1
12	DAVIS	1.00	168.25	19.03	12.58	2.25	39.4	21.1
2	WOODWORTH	1.00	186.75	15.38	15.48	1.25	41.0	20.0
6	PICKETT 71	1.00	165.75	14.70	13.68	1.75	37.9	21.2
4	RANSOM	1.00	160.00	19.00	13.00	2.00	38.5	21.4
3	BRAGG	1.00	156.25	12.53	16.95	2.25	40.8	19.6
9	WILLIAMS	1.00	138.00	13.68	16.90	1.50	41.8	21.0
15	MANABI	1.00	102.75	17.18	15.28	2.75	45.5	17.5
7	I.N.I.A.P.-JUPITER	1.00	113.25	21.88	15.63	2.00	35.1	22.2
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
STANDARD COEFFICIENT OF VARIATION								
5% 1ST VARIETY MEANS (**=***=NS)								
(+ - PROB=.05 ++ - PROB=.01)								
CORRELATIONS								
YIELD KG/H	0.00	0.60++	0.14	-0.20	-0.08	-0.20	-0.04	-0.04
DAYS TO FLOWER	0.00	-0.19	0.14	-0.23	0.23	0.23	0.07	0.07
DAYS TO MATURITY	0.00	-0.35++	0.32++	0.15	0.15	0.15	0.07	0.07
NODULE NUMBER 1	0.00	-0.28+	0.30+	0.01	0.01	0.01	-0.09	-0.09
NODULE NUMBER 2	0.00	-0.25++	0.20	0.21	0.21	0.21	0.26+	0.26+
NODULE WEIGHT 1	0.00	-0.33++	0.34++	0.04	0.04	0.04	0.01	0.01
NODULE WEIGHT 2	0.00	-0.22	0.09	0.31+	0.31+	0.31+	0.22	0.22
PLANT HEIGHT	0.00	0.01	0.23	-0.04	-0.04	-0.04	-0.08	-0.08
LODGING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANTS HARVEST	0.00	1.00	-0.29+	-0.27+	-0.27+	-0.27+	-0.22	-0.22
PODS PER PLANT	0.00	-0.29+	1.00	-0.20	-0.20	-0.20	-0.01	-0.01
100 SEED WEIGHT	0.00	-0.27+	-0.20	1.00	1.00	1.00	0.34++	0.34++
QUALITY OF SEED	0.00	-0.22	-0.01	0.34++	0.34++	0.34++	1.00	1.00

TABLE 195 EXPERIMENT 7 YEAR 1976

REGION - SOUTH AMERICA
 SITE - PICHILINGUE
 LATITUDE - 1 DEG. 5 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - JUNE 4, 1976 DATE HARVESTED - SEPTEMBER, 1976
 SOIL TYPE - SAND 90%, SILT 5%, CLAY 5%
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1 WEIGHT	MODULE NUMBER 2 WEIGHT	PLANT HEIGHT	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT LODGING
7	JUPITER	3062.78	32.00	113.00	53.50	165.75	0.20	1.86	87.65	2.75		
1	CALLAND	3058.82	32.00	89.00	80.25	134.25	0.37	2.17	67.65	1.25		
6	PICKETT 71	2946.88	32.00	95.00	45.50	132.75	0.15	1.35	33.15	1.00		
3	BRAGG	2867.70	32.00	93.00	72.50	225.75	0.27	1.99	38.85	1.25		
16	I.N.I.A.P.-JUPITER	2861.70	42.00	113.00	111.25	295.25	0.42	2.17	90.75	2.50		
12	DAVIS	2849.32	32.00	97.00	92.75	178.25	0.45	2.16	33.60	1.00		
4	RANSOM	2801.73	32.00	97.00	105.00	180.00	0.38	1.93	33.45	1.00		
14	FORREST	2756.18	32.00	89.00	53.25	127.25	0.24	1.97	42.45	1.25		
11	COBB	2660.41	32.00	95.00	86.75	118.50	0.37	1.78	43.10	1.00		
13	IMPROVED PELICAN	2301.75	32.00	89.00	48.00	116.25	0.18	1.64	81.35	1.75		
15	MANABI	2218.24	32.00	91.00	76.75	155.25	0.27	1.59	76.20	2.00		
5	HILL	2111.01	32.00	89.00	38.75	98.75	0.16	1.29	42.90	1.00		
9	WILLIAMS	2064.91	32.00	89.00	104.75	108.75	0.39	1.67	49.10	1.00		
2	WOODWORTH	2024.86	32.00	89.00	82.25	97.75	0.36	1.43	53.35	1.00		
8	BOSSIER	2000.23	32.00	91.00	76.50	130.50	0.41	1.89	34.45	1.00		
10	CLARK 63	1647.83	32.00	89.00	73.00	122.75	0.31	1.45	44.70	1.00		
GRAND MEAN												
STANDARD ERROR OF A VARIETY MEAN												
COEFFICIENT OF VARIATION (%)												
(5% LSD VARIETY MEANS) (***)												
C O R R E L A T I O N S												
(+ - PROB=.05 ++ - PROB=.01)												
YIELD KG/HA	1.00	0.15	0.48++	-0.14	0.05	-0.30+	0.09	0.16	0.27+			
	0.15	1.00	0.61++	0.30+	0.44++	0.19	0.17	0.47++	0.40++			
	0.48++	0.61++	1.00	0.09	0.41++	0.01	0.23	0.45++	0.56++			
	0.14	0.30+	0.09	1.00	0.35++	0.84++	0.26+	0.01	0.20			
	0.05	0.44++	0.41++	0.35++	1.00	0.38++	0.58++	0.11	0.08			
	0.05	0.19	0.01	0.84++	0.38++	1.00	0.48++	0.17	0.34++			
	-0.30+	0.17	0.23	0.26+	0.69++	0.48++	1.00	0.04	0.16			
	0.09	0.16	0.47++	0.01	0.11	0.17	-0.04	1.00	0.69++			
	0.27+	0.40++	0.56++	-0.20	0.08	-0.34++	-0.16	0.69++	1.00			
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	-0.04	-0.30+	-0.43++	-0.07	-0.25+	-0.02	-0.11	-0.43++	-0.40++			
	0.54++	0.46++	0.70++	0.16	0.14	-0.35++	-0.03	0.62++	0.80++			
	0.57++	0.07	0.28+	0.05	0.12	-0.05	0.09	-0.01	0.23			
	0.09	-0.21	-0.19	0.07	-0.17	0.00	-0.09	-0.15	-0.11			
(+ - PROB=.05 ++ - PROB=.01)												
PLANTS HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	-0.04	-0.30+	-0.43++	-0.07	-0.25+	-0.02	-0.11	-0.43++	-0.40++			
	0.54++	0.46++	0.70++	0.16	0.14	-0.35++	-0.03	0.62++	0.80++			
	0.57++	0.07	0.28+	0.05	0.12	-0.05	0.09	-0.01	0.23			
	0.09	-0.21	-0.19	0.07	-0.17	0.00	-0.09	-0.15	-0.11			
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	-0.04	-0.30+	-0.43++	-0.07	-0.25+	-0.02	-0.11	-0.43++	-0.40++			
	0.54++	0.46++	0.70++	0.16	0.14	-0.35++	-0.03	0.62++	0.80++			
	0.57++	0.07	0.28+	0.05	0.12	-0.05	0.09	-0.01	0.23			
	0.09	-0.21	-0.19	0.07	-0.17	0.00	-0.09	-0.15	-0.11			
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	-0.04	-0.30+	-0.43++	-0.07	-0.25+	-0.02	-0.11	-0.43++	-0.40++			
	0.54++	0.46++	0.70++	0.16	0.14	-0.35++	-0.03	0.62++	0.80++			
	0.57++	0.07	0.28+	0.05	0.12	-0.05	0.09	-0.01	0.23			
	0.09	-0.21	-0.19	0.07	-0.17	0.00	-0.09	-0.15	-0.11			

TABLE 195 EXPERIMENT 7 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
7	JUPITER	1.00	172.50	41.58	19.28	1.50	38.3	24.6
1	CALLAND	1.00	199.50	20.15	20.73	2.75	41.4	22.1
6	PICKETT 71	1.00	189.00	23.30	19.38	2.00	39.3	24.4
3	BRAGG	1.00	196.75	24.38	21.00	2.00	41.5	23.8
16	I.N.I.A.P.-JUPITER	1.00	171.25	39.70	19.15	1.25	39.2	23.7
12	DAVIS	1.00	186.00	21.95	18.95	1.25	39.5	23.9
4	RANSOM	1.00	192.50	22.60	19.60	2.50	39.1	25.2
14	FORREST	1.00	191.00	27.20	16.98	1.25	38.7	22.8
11	COBB	1.00	186.75	25.53	19.15	2.00	40.9	23.2
13	IMPROVED PELICAN	1.00	188.50	28.60	13.68	1.00	38.7	23.9
15	MANABI	1.00	166.00	28.88	21.30	2.25	45.7	19.8
5	HILL	1.00	191.25	21.10	17.13	1.50	36.4	23.3
9	WILLIAMS	1.00	195.25	17.35	18.35	2.00	40.0	23.1
2	WOODWORTH	1.00	186.00	19.40	17.23	2.25	37.3	24.3
8	BOSSIER	1.00	187.25	21.45	16.98	1.75	43.8	22.1
10	CLARK 63	1.00	193.75	18.18	16.95	1.75	41.6	22.2
	GRAND MEAN	1.00	187.08	25.08	18.49	1.81		
	STANDARD ERROR OF A VARIETY MEAN	0.00	5.69	2.57	0.78	0.29		
	COEFFICIENT OF VARIATION	0.00%	6.08%	20.49%	8.40%	31.59%		
	5% LSD VARIETY MEANS (*****=NS)	0.00	16.21	7.32	2.21	0.82		
	C O R R E L A T I O N S		(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)		
	YIELD KG/HA	0.00	-0.04	0.54++	0.57++	0.09		
	DAYS TO FLOWER	0.00	-0.30+	0.46++	0.07	-0.21		
	DAYS TO MATURITY	0.00	-0.43++	0.70++	0.28+	-0.19		
	ODULE NUMBER 1	0.00	-0.07	-0.16	0.05	0.07		
	ODULE NUMBER 2	0.00	-0.25+	0.14	0.12	-0.17		
	NODULE WEIGHT 1	0.00	-0.02	-0.35++	-0.05	0.00		
	NODULE WEIGHT 2	0.00	-0.11	-0.03	-0.09	-0.09		
	PLANT HEIGHT	0.00	-0.43++	0.62++	-0.01	-0.15		
	LODGING	0.00	-0.40++	0.80++	0.23	-0.11		
	SHATTER	1.00	0.00	0.00	0.00	0.00		
	PLANTS HARVEST	0.00	-0.41++	-0.41++	-0.18	0.12		
	PODS PER PLANT	0.00	-0.41++	1.00	0.26+	0.26+		
	100 SEED WEIGHT	0.00	-0.18	0.26+	1.00	0.40++		
	QUALITY OF SEED	0.00	0.12	-0.21	0.40++	1.00		

TABLE 196 EXPERIMENT 11 YEAR 1976

REGION - SOUTH AMERICA
 SITE - PORTOVIEJO
 LATITUDE - 1 DEG. 4 MIN. S
 COOPERATOR - I.N.I.A.P.-PROGRAMA OLEAGINOSAS
 DATE PLANTED - SEPTEMBER 8, 1976
 SOIL PH 7.0
 AMOUNT OF MOISTURE - 280 MM
 LOCAL VARIETIES - MANABI, I.N.I.A.P.-JUPITER

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/H.A	FLOWER	DAYS TO MATURITY	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LODGING
13	IMPROVED PELICAN	3671.23	35.50	110.50	81.25	212.75	0.32	1.75	85.45	3.60
16	I.N.I.A.P.-JUPITER	3513.79	47.00	125.00	93.75	238.25	0.43	1.59	68.25	2.25
17	JUPITER	3395.18	47.50	125.00	131.50	326.25	0.60	2.16	66.55	1.75
12	DAVIS	3334.17	31.50	112.00	88.75	287.75	0.45	2.23	36.50	1.00
1	CALLAND	3333.29	28.25	110.00	72.25	167.50	0.26	1.30	52.10	1.25
15	MANABI	2867.70	33.50	110.00	68.00	270.00	0.16	2.79	65.40	2.75
3	BRAGG	2727.21	27.75	112.00	49.50	176.00	0.06	0.90	31.65	1.00
14	FORREST	2620.98	32.75	104.00	57.50	279.25	0.17	1.68	33.05	1.00
5	HILL	2578.14	33.75	103.50	46.25	141.75	0.11	0.67	28.90	1.00
10	CLARK 63	2531.55	29.50	102.75	63.25	77.75	0.11	0.41	48.95	1.50
9	WILLIAMS	2369.47	28.50	99.00	101.50	129.25	0.13	0.88	38.05	1.00
4	RANSOM	2231.40	28.25	112.00	86.75	187.25	0.13	1.11	28.35	1.00
11	COBB	2034.12	30.00	112.00	38.00	69.50	0.05	0.45	25.35	1.60
8	BOSSIER	1822.61	28.75	106.00	81.25	170.25	0.18	1.33	21.95	1.50
2	WOODWORTH	1779.73	27.50	101.00	45.00	52.00	0.04	0.31	38.25	1.50
6	PICKETT 71	1455.33	29.75	104.00	47.00	172.50	0.09	0.82	21.80	1.00
384	GRAND MEAN	2641.62	32.48	109.30	71.97	184.50	0.21	1.27	43.16	1.44
	STANDARD ERROR OF A VARIETY MEAN	189.94	0.68	18.48	42.39	0.09	0.27	2.45	0.20	
	COEFFICIENT OF VARIATION	14.38%	3.22%	1.25%	51.36%	45.95%	84.47%	41.87%	11.36%	27.68%
	5% LSD VARIETY MEANS (**NS=NS)	541.04	1.49	1.95	*****	120.75	0.25	0.76	6.98	0.57

(* - PROB=.05 ** - PROB=.01)

CORRELATIONS

YIELD KG/H.A	1.00	0.52++	0.53++	0.35++	0.34++	0.54++	0.37++	0.71++	0.48++
DAYS TO FLOWER	0.52++	1.00	0.77++	0.31+	0.33++	0.56++	0.32++	0.59++	0.43++
DAYS TO MATURITY	0.53++	0.77++	1.00	0.29+	0.34++	0.52++	0.34++	0.47++	0.33++
MODULE NUMBER 1	0.35++	0.31+	0.29+	1.00	0.47++	0.80++	0.51++	0.31++	0.10
MODULE NUMBER 2	0.34++	0.33++	0.34++	0.47++	1.00	0.53++	0.86++	0.26++	0.21
MODULE WEIGHT 1	0.54++	0.56++	0.52++	0.80++	0.53++	1.00	0.55++	0.43++	0.21
MODULE WEIGHT 2	0.37++	0.32++	0.34++	0.51++	0.86++	0.55++	1.00	0.39++	0.34++
PLANT HEIGHT	0.71++	0.59++	0.47++	0.31+	0.26+	0.43++	0.39++	1.00	0.78++
LOGGING	0.48++	0.43++	0.33++	0.10	0.21	0.34++	0.78++	1.00	
SHATTER	-0.16	-0.27+	-0.16	-0.15	-0.20	-0.05	-0.05	-0.05	0.05
PLANTS HARVEST	0.20	-0.43++	-0.29+	-0.00	-0.25+	-0.10	-0.26+	-0.13	-0.23
PODS PER PLANT	0.47++	0.79++	0.67++	0.22	0.43++	0.44++	0.49++	0.68++	0.65++
100 SEED WEIGHT	0.30+	0.38++	0.69++	0.21	0.27+	0.32++	0.33++	0.17	0.12
QUALITY OF SEED	-0.11	-0.42++	-0.15	-0.10	-0.17	-0.17	-0.11	-0.27+	-0.23

TABLE 196 EXPERIMENT 11 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	IMPROVED PELICAN	1.75	170.00	55.35	18.93	2.00
16	I.N.I.A.P.-JUPITER	1.25	87.50	85.55	25.63	2.25
7	JUPITER	1.00	107.25	80.85	26.88	2.25
12	DAVIS	1.75	164.50	39.30	24.78	3.25
1	CALLAND	2.00	164.00	36.80	23.45	5.00
15	MANABI	2.00	106.00	69.00	24.88	3.75
3	BRAGG	1.25	172.25	28.85	24.68	3.00
14	FORREST	1.25	150.00	33.55	18.55	2.00
5	HILL	1.25	158.50	34.80	19.23	3.50
10	CLARK 63	1.75	155.00	33.85	19.73	3.25
9	WILLIAMS	1.00	154.75	29.95	21.03	2.75
4	RANSOM	1.25	161.75	33.40	22.28	3.75
11	COBB	2.00	157.50	32.60	24.38	3.00
8	BOSSIER	1.75	107.00	30.85	22.10	4.00
2	WOODWORTH	1.75	145.75	34.75	19.03	2.50
6	PICKETT 71	2.00	96.75	28.90	21.58	3.00
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% LSD VARIETY MEANS (******=NS)						
CORRELATIONS (* - PROB=.05 ** - PROB=.01)						
YIELD	KG/HA	-0.16	0.20	0.47++	0.30+	-0.11
DAYS TO FLOWER		-0.27+	-0.43++	-0.38++	-0.42++	
DAYS TO MATURITY		-0.16	-0.29+	0.67++	0.69++	-0.15
ODULE NUMBER 1		-0.15	-0.00	0.22	0.21	-0.10
ODULE NUMBER 2		-0.20	-0.25+	0.43++	0.27+	-0.17
ODULE WEIGHT 1		-0.05	-0.10	0.44++	0.32++	-0.17
ODULE WEIGHT 2		-0.05	-0.26+	0.49++	0.33++	-0.11
PLANT HEIGHT		-0.05	-0.13	0.68++	0.17	-0.27*
LODGING		0.05	-0.23	0.65++	0.12	-0.23
SHATTER		1.00	0.03	-0.10	-0.10	0.34++
PLANTS HARVEST		0.03	1.00	-0.55++	-0.35++	-0.12
PODS PER PLANT		-0.10	-0.55++	1.00	0.45++	-0.25*
100 SEED WEIGHT		-0.10	-0.35++	0.45++	1.00	0.12
QUALITY OF SEED		0.34++	0.12	-0.25+	0.12	1.00

TABLE 197 EXPERIMENT 8 YEAR 1976

REGION - SOUTH AMERICA
 SITE - QUITO
 LATITUDE - 0 DEG. 22 MIN. S
 COOPERATOR - I.N.I.A.P.
 DATE PLANTED - APRIL 20, 1976
 SOIL TYPE - CLAY, PH 6.2
 AMOUNT OF MOISTURE - 808 MM
 NUMBER OF IRRIGATIONS - 3
 LOCAL VARIETIES - AMERICANA SELEC(T), JUPITER SELEC(T)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING	
9	WILLIAMS	247.97	0.00	98.00	0.00	0.00	0.00	0.00	16.25	1.75	
2	WOODWORTH	241.05	0.00	91.00	0.00	0.00	0.00	0.00	16.90	1.25	
10	CLARK 63	160.41	0.00	98.00	0.00	0.00	0.00	0.00	13.80	1.00	
6	PICKETT 71	142.57	0.00	107.00	0.00	0.00	0.00	0.00	19.50	1.00	
8	BOSSIER	123.07	0.00	127.00	0.00	0.00	0.00	0.00	14.90	1.00	
1	CALLAND	122.73	0.00	127.00	0.00	0.00	0.00	0.00	15.40	1.50	
14	FORREST	78.14	0.00	188.00	0.00	0.00	0.00	0.00	36.55	1.00	
12	DAVIS	72.01	0.00	188.00	0.00	0.00	0.00	0.00	26.95	1.00	
4	RANSOM	70.97	0.00	127.00	0.00	0.00	0.00	0.00	14.00	1.00	
11	COBB	56.93	0.00	127.00	0.00	0.00	0.00	0.00	16.50	1.00	
3	BRAGG	42.84	0.00	142.00	0.00	0.00	0.00	0.00	14.70	1.00	
7	JUPITER SELEC(T)	36.55	0.00	156.00	0.00	0.00	0.00	0.00	42.95	1.00	
16	JUPITER SELEC(T)	33.01	0.00	157.50	0.00	0.00	0.00	0.00	37.00	1.00	
13	IMPROVED PELICAN	13.13	0.00	142.00	0.00	0.00	0.00	0.00	19.10	1.00	
5	HILL	11.17	0.00	188.00	0.00	0.00	0.00	0.00	29.80	1.00	
15	AMERICANA SELEC(T)	7.08	0.00	188.00	0.00	0.00	0.00	0.00	15.95	1.00	
GRAND MEAN		91.23	0.00	140.72	0.00	0.00	0.00	0.00	21.89	1.09	
STANDARD ERROR OF A VARIETY MEAN		25.43	0.00	0.38	0.00	0.00	0.00	0.00	1.86	0.12	
COEFFICIENT OF VARIATION		55.75%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	16.97%	21.28%	
5% LSE VARIETY MEANS (**NS=NS)		72.44	0.00	1.07	0.00	0.00	0.00	0.00	5.29	0.33	
C O R R E L A T I O N S (* - PROB=.05 ** - PROB=.01)											
YIELD	KG/HA	1.00	0.00	-0.66++	0.00	0.00	0.00	0.00	-0.27+	0.38++	
DAYS TO FLOWER		0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DAYS TO MATURITY		-0.66++	0.00	1.00	0.00	0.00	0.00	0.00	-0.55++	-0.33++	
NODULE NUMBER 1		0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 1		0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	
NODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
PLANT HEIGHT		-0.27+	0.00	0.55++	0.00	0.00	0.00	0.00	1.00	-0.22	
LOGGING		0.38++	0.00	-0.33++	0.00	0.00	0.00	0.00	-0.22	1.00	
SHATTER		-0.16	0.00	-0.12	-0.00	0.00	0.00	0.00	-0.03	-0.08	
PLANTS HARVEST		0.80++	0.00	-0.77++	0.00	0.00	0.00	0.00	-0.41++	0.32+	
PODS PER PLANT		0.54++	0.00	-0.58++	0.00	0.00	0.00	0.00	-0.18	-0.03	
100 SEED WEIGHT		0.58++	0.00	-0.47++	0.00	0.00	0.00	0.00	-0.19	0.44++	
QUALITY OF SEED		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

TABLE 197 EXPERIMENT 8 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
9	WILLIAMS	1.75	207.75	4.25	15.20	0.00	43.9	17.8
2	WOODWORTH	2.00	207.00	6.95	10.95	0.00	44.7	15.8
10	CLARK 63	1.00	203.50	5.47	12.48	0.00	43.2	17.9
6	PICKETT 71	3.00	183.50	7.35	9.13	0.00	46.0	15.6
8	BOSSIER	3.00	169.25	7.25	9.40	0.00	48.0	14.0
1	CALLAND	3.25	183.50	4.15	14.78	0.00	44.5	15.6
14	FORREST	2.25	114.00	3.58	11.13	0.00	42.0	16.7
12	DAVIS	2.50	86.50	4.62	9.55	0.00	44.0	14.5
4	RANSOM	2.75	122.75	4.55	10.83	0.00	43.6	15.3
11	COBB	4.00	169.25	8.40	8.75	0.00	42.4	15.2
3	BRAGG	1.25	109.25	3.58	11.10	0.00	46.6	15.1
7	JUPITER SELEC (T)	2.00	56.75	4.30	9.47	0.00	46.5	14.3
16	JUPITER SELEC (T)	2.25	63.75	3.10	9.67	0.00	46.5	15.2
13	IMPROVED PELICAN	2.25	61.25	4.00	10.53	0.00	47.8	16.2
5	HILL	3.00	35.50	2.40	7.62	0.00	43.8	15.7
15	AMERICANA SELEC (T)	2.50	13.25	0.67	7.50	0.00	--	--
	GRAND MEAN	2.42	124.17	4.66	10.50	0.00		
	STANDARD ERROR OF A VARIETY MEAN	0.37	17.98	1.06	0.74	0.00		
	COEFFICIENT OF VARIATION	30.82%	28.96%	45.60%	14.09%	0.00%		
	5% LSD VARIETY MEANS (*****NS)	1.06	51.21	3.03	2.11	0.00		
	CORRELATIONS (* - PROB=.05 ** - PROB=.01)							
	YIELD KG/HA	-0.16	0.80++	0.54++	0.58++	0.00		
	DAYS TO FLOWER	0.00	0.00	0.00	0.00	0.00		
	DAYS TO MATURITY	0.12	-0.77++	-0.48++	-0.47++	0.00		
	NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00		
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00		
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00		
	PLANT HEIGHT	-0.03	-0.41++	-0.18	-0.19	0.00		
	LODGING	-0.08	0.32+	-0.03	0.44++	0.00		
	SHATTER	1.00	0.07	0.19	-0.23	0.00		
	PLANTS HARVEST	0.07	1.00	0.65++	0.57++	0.00		
	PODS PER PLANT	0.19	0.63++	1.00	0.19	0.00		
	100 SEED WEIGHT	-0.23	0.57++	0.19	1.00	0.00		
	QUALITY OF SEED	0.00	0.00	0.00	1.00	0.00		

TABLE 198

EXPERIMENT 155

YEAR 1976

REGION - SOUTH AMERICA
 SITE - CAACUPE
 LATITUDE - 25 DEG. 24 MIN. S
 COOPERATORS - R. CASCIA & O. AGUILERA, J. LOPEZ
 DATE PLANTED - DECEMBER 10, 1976
 SOIL TYPE - SAND 52.4%, SILT 25.6%, CLAY 22.3%
 PERTILIZER USED (KG/HA) - P 35.0, K 66.0
 AMOUNT OF MOISTURE - 771 MM
 NUMBER OF IRRIGATIONS - 1 (8 MM)
 LOCAL VARIETIES - GALAXIA, VISOJA

COUNTRY - PARAGUAY

ELEVATION - 226 M

LONGITUDE - 57 DEG. 6 MIN. W

DATE HARVESTED - MARCH, 1977

SOIL PH 5.7

AMOUNT OF MOISTURE - 771 MM
 NUMBER OF IRRIGATIONS - 1 (8 MM)

LOCAL VARIETIES - GALAXIA, VISOJA
 VARIETY OR CROSS
 ENTRY NUMBER

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	NODULE NUMBER 1	NODULE NUMBER 2	PLANT HEIGHT	WEIGHT 1	WEIGHT 2	LOGGING
1.6	VISOJA	2835.98	56.00	157.75	167.25	272.25	1.08	1.24	98.75	1.00		
1.5	GALAXIA	2508.83	42.00	124.00	162.25	298.25	1.41	1.60	70.50	1.00		
1.1	DAVIS	2410.90	46.00	142.75	248.25	211.50	1.27	0.94	78.25	1.00		
1.3	BRAGG	2383.81	40.50	157.00	174.50	321.75	1.29	0.76	75.60	1.00		
8	BOSSIER	2340.05	41.00	150.75	179.00	323.50	1.96	1.21	72.50	1.00		
1.2	FORREST	2206.69	39.00	130.50	131.00	180.75	0.58	0.74	68.50	1.25		
1.5	HILL	2102.50	41.00	128.50	133.00	193.50	0.68	0.80	72.50	1.00		
5	PICKETT 71	1994.15	41.00	157.00	116.75	197.00	1.08	0.80	53.25	1.25		
6	RANSOM	1960.81	39.00	157.00	197.25	289.75	0.72	1.08	54.75	1.00		
4	CALLAND	1856.62	27.00	128.25	67.50	142.75	0.12	1.12	76.25	1.00		
1	CUTLER 71	1373.19	31.00	140.50	120.25	161.00	0.30	1.14	77.00	1.00		
7	CLARK 63	1348.19	31.00	118.00	63.75	207.50	0.10	1.25	65.00	1.00		
10	WILLIAMS	1323.18	27.00	126.75	116.00	155.75	0.12	0.67	67.00	1.00		
9	WOODWORTH	993.95	27.00	98.00	88.25	98.00	0.08	0.64	70.50	1.00		
2	BEESON	766.82	27.00	140.00	75.00	69.50	0.08	0.67	60.50	1.25		
14	WELLS	718.39	27.00	125.50	73.75	165.50	0.13	0.78	53.50	1.00		
13												
		GRAND MEAN		136.38	132.11	205.52	0.69	0.97	69.61	1.05		
		STANDARD ERROR OF A VARIETY MEAN		6.11	27.42	38.59	0.22	0.20	3.64	0.11		
		COEFFICIENT OF VARIATION		8.96%	41.51%	37.55%	63.98%	42.06%	10.46%	21.14%		
388	5% 1ST VARIETY MEANS (**NS=NS)	589.64	0.36	17.41	78.11	109.92	0.63	*****	10.37	*****		

(* - PROB=.05 ** - PROB=.01)

CORRELATIONS

YIELD KG/HA	FLOWER	DAYS TO MATURITY	NUMBER 1	NUMBER 2	WEIGHT 1	WEIGHT 2	HEIGHT	LOGGING	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PROB=.05	PROB=.01
0.35**	0.51**	0.52**	0.40**	0.40**	0.42**	0.57**	0.72**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.43**	0.43**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.52**	0.52**	0.40**	0.40**	0.42**	0.57**	0.70**	0.69**	0.42**	0.42**	0.40**	0.29**	0.29**	-0.11	-0.02
0.35**	0.51**	0.51**	0.40**	0.40**	0.42**	0.57**	0.70**	0.6							

TABLE 198 EXPERIMENT 155 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED	PERCENT PROTEIN	PERCENT OIL
16	VISOJA	1.00	193.25	48.90	16.05	2.00	44.3	20.2
15	GALAXIA	1.00	164.25	41.32	18.41	2.25	43.7	21.1
11	DAVIS	1.25	258.25	29.83	19.55	2.50	42.1	22.1
3	BRAGG	1.00	257.00	25.28	18.64	2.25	43.0	22.2
8	BOSSIER	1.25	163.75	36.08	18.15	2.25	44.9	20.7
12	FORREST	1.25	163.00	35.87	13.85	3.50	42.0	21.7
5	HILL	1.00	236.75	25.87	15.95	2.25	42.0	20.7
6	PICKETT 71	1.50	179.75	25.97	17.91	3.25	44.0	22.3
4	RANSOM	1.50	218.25	18.40	18.98	3.00	42.2	24.6
1	CAULAND	1.50	189.75	23.35	21.41	3.25	42.7	20.9
7	CUTLER 71	1.25	188.25	25.58	19.05	3.00	43.7	21.7
10	CLARK 63	1.25	217.25	21.72	17.37	2.75	39.5	23.2
9	WILLIAMS	1.50	179.25	24.50	17.80	3.00	42.9	21.2
2	WOODWORTH	1.00	184.75	23.17	14.78	2.50	41.2	22.2
14	BEESON	1.75	200.75	17.40	16.72	4.50	43.5	21.0
13	WELLS	1.50	189.50	22.83	15.81	4.50	42.1	22.9
GRAND MEAN								
STANDARD ERROR OF A VARIETY MEAN								
COEFFICIENT OF VARIATION								
5% LSD VARIETY MEANS (*****=NS)								
CORRELATIONS {+ - PROB=.05								
{+ - PROB=.05								
YIELD KG/HA								
DAYS TO FLOWER								
DAYS TO MATURITY								
NODULE NUMBER 1								
NODULE NUMBER 2								
NODULE WEIGHT 1								
NODULE WEIGHT 2								
PLANT HEIGHT								
LODGING								
SHATTER								
PLANTS HARVEST								
PODS PER PLANT								
100 SEED WEIGHT								
QUALITY OF SEED								

TABLE 199 EXPERIMENT 156 YEAR 1976

REGION - SOUTH AMERICA
 SITE - CAPITAN-MIRANDA
 COOPERATOR - S. PANIAGUA S.

COUNTRY - PARAGUAY

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	Maturity	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LODGING	CORRELATIONS	
											PROB=.05	PROB=.01
9	WILLIAMS	1671.17	0.00	0.00	0.00	0.00	0.00	0.00	62.00	0.00		
	CALLAND	1667.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00	0.00		
1	BOSSIER	1629.49	0.00	0.00	0.00	0.00	0.00	0.00	59.00	0.00		
8	RANSOM	1600.32	0.00	0.00	0.00	0.00	0.00	0.00	55.00	0.00		
4	CLARK 63	1537.81	0.00	0.00	0.00	0.00	0.00	0.00	62.75	0.00		
10	PICKETT 71	1487.80	0.00	0.00	0.00	0.00	0.00	0.00	45.75	0.00		
6	WOODWORTH	1452.37	0.00	0.00	0.00	0.00	0.00	0.00	65.25	0.00		
2	CUTLER 71	1433.62	0.00	0.00	0.00	0.00	0.00	0.00	67.25	0.00		
7	BRAGG	1425.28	0.00	0.00	0.00	0.00	0.00	0.00	71.25	0.00		
3	ESSEX	1391.94	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00		
16	COLUMBUS	1346.10	0.00	0.00	0.00	0.00	0.00	0.00	67.75	0.00		
15	DAVIS	1346.10	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00		
11	BEESON	1339.85	0.00	0.00	0.00	0.00	0.00	0.00	53.00	0.00		
14	FORREST	1308.59	0.00	0.00	0.00	0.00	0.00	0.00	58.00	0.00		
12	HILL	1202.32	0.00	0.00	0.00	0.00	0.00	0.00	62.75	0.00		
5	WELLS	1175.23	0.00	0.00	0.00	0.00	0.00	0.00	46.00	0.00		
13												
	GRAND MEAN	1438.44	0.00	0.00	0.00	0.00	0.00	0.00	61.92	0.00		
	STANDARD ERROR OF A VARIETY MEAN	55.13	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00		
	COEFFICIENT OF VARIATION	7.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.85%	0.00%		
390	5% LST VARIETY MEANS (*******=NS)	157.04	0.00	0.00	0.00	0.00	0.00	0.00	6.04	0.00		

TABLE 199 EXPERIMENT 156 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
9	WILLIAMS	6.00	176.75	18.60	15.00
1	CALLAND	0.00	173.25	17.33	14.75
8	BOSSIER	0.00	73.75	44.28	14.25
4	RANSOM	0.00	152.00	21.30	13.13
10	CLARK 63	0.00	167.50	18.23	13.13
6	PICKETT 71	0.00	106.25	32.10	12.75
2	WOODWORTH	0.00	176.75	20.43	12.50
7	CUTLER 71	0.00	154.25	21.05	14.00
3	BRAGG	0.00	192.25	23.10	13.75
16	ESSEX	0.00	138.50	31.60	14.63
15	COLUMBUS	0.00	84.00	38.68	14.75
11	DAVIS	0.00	181.50	22.75	14.75
14	BEESON	0.00	175.50	18.28	14.50
12	FORREST	0.00	91.75	52.00	10.50
5	HILL	0.00	100.50	27.13	13.13
13	WELLS	0.00	156.75	19.50	10.00
	GRAND MEAN	0.00	143.83	26.65	13.47
	STANDARD ERROR OF A VARIETY MEAN	0.00	8.01	3.09	0.54
	COEFFICIENT OF VARIATION	0.00%	11.14%	23.18%	7.99%
5*	ISD VARIETY MEANS (***(****=NS)	0.00	22.81	8.80	1.53
	C O R R E L A T I O N S	(+ - PROB=.05	+ + - PROB=.01)		
	YIELD KG/HA	0.00	0.16	-0.06	0.31+
	DAYS TO FLOWER	0.00	0.00	0.00	0.00
	DAYS TO MATURITY	0.00	0.00	0.00	0.00
	ODULE NUMBER 1	0.00	0.00	0.00	0.00
	ODULE NUMBER 2	0.00	0.00	0.00	0.00
	ODULE WEIGHT 1	0.00	0.00	0.00	0.00
	ODULE WEIGHT 2	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.00	0.19	-0.05	0.45+
	LODGING	0.00	0.20	0.00	0.00
	SHATTER	1.00	0.00	0.00	0.00
	PLANTS HARVEST	0.00	1.00	-0.73++	0.12
	PODS PER PLANT	0.00	-0.73++	1.00	-0.13
	100 SEED WEIGHT	0.00	0.12	-0.13	1.00
	QUALITY OF SEED	0.00	0.00	0.00	1.00

TABLE 200 EXPERIMENT 291

YEAR 1976

REGION - SOUTH AMERICA
 SITE - BAGUA
 LATITUDE - 5 DEG. 40 MIN. S
 COOPERATOR - CESAR ARCAIA MACEDA
 DATE PLANTED - SEPTEMBER 23, 1976
 SOIL TYPE - CLAY, PH 8.3
 AMOUNT OF MOISTURE - 118 MM
 NUMBER OF IRRIGATIONS - 3
 SUBSTITUTE VARIETY - IMPROVED PELICAN

COUNTRY - PERU
 ELEVATION - 517 M
 LONGITUDE - 78 DEG. 36 MIN. W
 DATE HARVESTED - JANUARY, 1977

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	PLANT HEIGHT	LOGGING	
6	PICKETT 71	2989.50	22.75	95.25	6.75	17.75	0.40	1.48	58.25	1.25			
8	JUPITER	2888.75	27.25	109.75	9.25	17.00	0.72	2.00	34.00	1.00			
14	IMPROVED PELICAN	2658.25	20.50	94.00	6.75	15.00	0.42	1.55	39.00	1.00			
9	BOSSIER	2635.25	27.00	98.50	7.00	13.75	0.43	1.50	42.50	1.25			
11	CLARK 63	2629.25	24.50	94.00	7.50	12.00	0.72	1.33	37.00	1.00			
11	CALLAND	2612.50	22.75	98.00	7.75	15.50	0.77	2.20	36.00	1.00			
1	BRAGG	2605.50	27.75	94.50	6.50	14.00	0.48	1.70	50.00	1.25			
3	FORREST	2546.00	24.75	98.50	8.75	15.75	0.65	1.25	35.00	1.00			
2	WOODWORTH	2508.25	21.75	99.50	7.75	15.50	0.35	2.08	36.00	2.00			
4	RANSOM	2441.75	24.25	106.00	8.75	12.75	0.48	1.63	32.25	1.25			
5	HILL	2393.75	24.75	95.25	9.25	16.25	0.50	2.60	46.00	1.25			
16	IMPROVED PELICAN (PERU)	2375.25	35.25	94.75	7.00	14.00	0.25	0.75	40.75	1.00			
7	CUTLER 71	2316.75	28.50	101.00	8.50	22.25	0.72	1.85	50.25	1.25			
10	WILLIAMS	2283.50	22.00	95.00	8.00	12.25	0.53	1.18	36.25	2.00			
12	COBB	2144.25	23.25	101.50	11.00	17.75	0.60	1.60	35.00	1.00			
13	DAVIS	2141.00	21.50	95.25	6.00	10.25	0.43	1.55	40.50	1.00			
GRAND MEAN		2510.59	24.91	98.17	7.91	15.11	0.53	1.64	40.55	1.22			
STANDARD ERROR OF A VARIETY MEAN		420.18	0.95	0.87	1.72	3.13	0.18	0.47	8.50	0.13			
COEFFICIENT OF VARIATION		33.47%	7.65%	1.77%	43.54%	41.49%	69.04%	56.98%	41.93%	20.51%			
5% LSD VARIETY MEANS (*****NS)		2.71	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	
CORRELATIONS (+ - PROB=.05 ++ - PROB=.01)													
YIELD	KG/HA	1.00	-0.04	0.08	0.33++	0.34++	0.28+	0.20	0.27*	-0.06			
DAYS TO	FLOWER	-0.04	1.00	0.13	0.02	0.13	-0.09	-0.08	-0.05	-0.17			
DAYS TO	MATURITY	0.08	0.13	1.00	0.28+	0.22	0.16	0.16	-0.05	-0.04			
NODULE	NUMBER 1	0.33++	0.02	0.28+	1.00	0.44++	0.51++	0.13	-0.05	-0.01			
NODULE	NUMBER 2	0.34++	0.13	0.22	0.44++	1.00	0.35++	1.00	0.40++	-0.05			
NODULE	WEIGHT 1	0.28+	-0.09	0.16	0.51++	0.35++	1.00	0.34++	0.34++	0.04			
NODULE	WEIGHT 2	0.20	-0.08	0.16	0.13	0.40++	0.40++	1.00	0.24	0.24			
PLANT	HEIGHT	0.27+	0.05	-0.16	-0.05	0.23	0.04	0.24	1.00	-0.14			
LOGGING	-0.06	-0.04	-0.04	-0.01	-0.05	-0.13	-0.06	-0.14	-0.14	1.00			
SHATTER		0.04	0.25+	0.03	-0.01	0.10	-0.02	0.03	0.24	-0.38++			
PLANTS	HARVEST	-0.27+	-0.11	-0.27+	-0.03	-0.17	0.13	-0.03	-0.09	0.07			
PODS PER	PLANT	0.49++	0.11	0.14	-0.01	0.34++	-0.13	0.09	0.28+	-0.10			
100 SEED	WEIGHT	0.32++	-0.20	0.25+	0.18	0.26+	0.15	0.21	-0.04	-0.25+			
QUALITY	OF SEED	-0.05	-0.22	-0.25	0.03	-0.13	0.02	-0.05	-0.10	-0.27+			

TABLE 200 EXPERIMENT 291 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
6	PICKETT 71	1.75	166.50	32.50	19.75	2.00
8	JUPITER	1.00	131.00	40.00	20.00	1.00
14	IMPROVED PELICAN	1.00	172.25	36.75	19.00	1.00
9	BOSSIER	1.75	201.00	21.50	17.50	2.00
11	CLARK 63	1.00	215.25	22.75	17.75	4.00
1	CALIAND	2.00	166.50	17.50	18.25	2.00
3	BRAGG	1.00	177.25	25.00	16.50	1.75
15	FORREST	1.00	210.25	17.25	19.50	3.00
2	WOODBORTH	1.00	177.00	18.25	18.25	4.00
4	RANSOM	1.75	158.25	25.75	18.75	2.00
5	HILL	1.75	186.00	17.50	18.25	2.00
16	IMPROVED PELICAN (PERU)	1.75	158.25	27.25	17.50	2.00
7	CUTLER 71	1.75	177.25	33.75	17.75	2.00
10	WILLIAMS	1.00	180.00	25.50	16.00	3.00
12	COBB	1.00	192.00	19.75	19.25	2.50
13	DAVIS	1.00	190.75	18.00	19.00	3.00
	GRAND MEAN	1.34	178.72	24.92	18.31	2.33
	STANDARD ERROR OF A VARIETY MEAN	0.14	15.93	8.92	1.20	0.14
	COEFFICIENT OF VARIATION	20.57%	17.82%	71.58%	13.12%	12.32%
	5% LSD VARIETY MEANS (*****=NS)	0.39	*****	*****	*****	0.41
	C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)
	YIELD KG/HA	0.04	-0.27+	0.49++	0.32++	-0.05
	DAYS TO FLOWER	0.25+	-0.11	0.11	-0.20	-0.22
	DAYS TO MATURITY	0.03	-0.27+	0.14	0.25+	-0.25
	NODULE NUMBER 1	-0.01	-0.03	-0.01	0.18	0.03
	NODULE NUMBER 2	0.10	-0.17	0.34++	0.26+	-0.13
	NODULE WEIGHT 1	-0.02	0.13	-0.13	0.15	0.02
	NODULE WEIGHT 2	0.03	-0.03	0.09	0.21	-0.05
	PLANT HEIGHT	0.24	-0.09	0.28+	-0.04	-0.10
	LODGING	-0.38++	0.07	-0.10	-0.25+	0.27+
	SHATTER	1.00	-0.20	0.05	0.03	-0.27+
	PLANTS HARVEST	-0.20	1.00	-0.68++	-0.25+	0.36++
	PODS PER PLANT	0.05	-0.68++	1.00	0.22	-0.25+
	100 SEED WEIGHT	0.03	-0.25+	0.22	1.00	-0.11
	QUALITY OF SEED	-0.27+	0.36++	-0.25+	-0.11	1.00

TABLE 201 EXPERIMENT 372 YEAR 1976

REGION - SOUTH AMERICA
 SITE - LA VINA
 LATITUDE - 12 DEG. 5 MIN. S
 COOPERATOR - H. SOPLIN V.
 DATE PLANTED - FEBRUARY 12, 1977
 SOIL TYPE - SAND 69.8%, SILT 17.8%, CLAY 12.4%, PH 8.0
 FERTILIZER USED (KG/HA) - N 25.0, P 80.0, K 30.0
 NUMBER OF IRRIGATIONS - 10

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	FLOWER	DAYS TO MATURITY	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
8	JUPITER	3063.11	41.00	113.50	69.50	66.25	0.34	0.78	71.37	2.75
13	DAVIS	2435.90	31.00	102.00	24.75	24.75	0.21	1.19	26.10	1.00
16	COLUMBUS	2077.50	32.50	105.00	16.00	74.25	0.17	1.47	43.20	1.75
11	CLARK 63	2060.83	30.75	103.50	30.75	43.50	0.30	1.18	44.35	1.00
10	WILLIAMS	1850.37	34.00	89.75	14.75	116.25	0.12	1.60	40.43	1.00
1	CALLAND	1842.03	34.00	98.00	11.25	79.00	0.09	1.10	46.25	1.25
7	CUTLER 71	1748.27	36.25	101.00	22.75	50.75	0.18	1.55	43.90	1.50
3	BRAGG	1733.68	29.00	98.00	7.75	25.75	0.08	0.56	28.00	1.00
14	IMPROVED PELICAN	1652.41	43.50	100.25	12.25	19.50	0.08	0.44	63.60	1.00
15	FORREST	1529.47	28.50	92.00	16.00	47.50	0.10	0.77	28.60	1.50
4	RANSOM	1475.29	40.00	108.00	19.50	39.00	0.23	0.98	23.38	1.00
2	WOODWORTH	1111.06	34.00	90.00	9.25	39.50	0.11	0.59	38.60	1.00
5	HILL	1081.47	35.00	106.00	23.25	35.50	0.18	0.57	26.23	1.00
12	COBB	806.41	32.00	111.00	21.75	45.75	0.12	0.87	21.60	1.00
6	PICKETT 71	798.08	33.75	110.00	15.75	35.25	0.06	1.99	19.53	1.00
9	BOSSIER	754.32	40.50	110.00	23.50	37.00	0.16	1.15	18.53	1.00
GRAND MEAN										
		1626.26	34.73	102.38	21.17	48.72	0.16	1.05	36.48	1.23
STANDARD ERROR OF A VARIETY MEAN										
		198.50	0.85	1.57	2.60	8.74	0.02	0.23	1.54	0.15
COEFFICIENT OF VARIATION										
		24.41%	4.92%	3.07%	24.59%	35.87%	30.03%	44.23%	8.42%	23.63%
5% LSD VARIETY MEANS (*****=NS)										
CORRELATIONS										
		(+ - PROB=.05) PROB=.01)

YIELD KG/HA	FLOWER	DAYS TO Maturity	DAYS TO NODULE NUMBER 1	DAYS TO NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING
1.00	0.02	-0.03	0.57**	0.29*	0.55**	0.06	0.61**	0.44**
0.02	1.00	0.35**	0.28*	-0.04	-0.12	0.38**	0.16	
-0.03	0.35**	1.00	0.51**	-0.21	0.39**	0.08	-0.10	0.27**
0.57**	0.28*	0.51**	1.00	0.10	0.82**	0.02	0.43**	0.59**
0.29*	-0.04	-0.21	0.10	1.00	0.47**	0.47**	0.26*	0.18
0.04	0.15	0.39**	0.82**	0.00	1.00	0.00	0.28*	0.37**
0.51**	0.12	0.08	0.02	0.47**	0.00	1.00	-0.13	-0.02
0.61**	0.38**	-0.10	0.43**	0.26*	0.28*	-0.13	1.00	0.59**
0.44**	0.16	0.27*	0.59**	0.18	0.37**	-0.02	0.55**	1.00
SHATTER	-0.10	-0.24	-0.26*	0.31*	-0.26*	0.42**	-0.16	-0.12
PLANTS HARVEST	0.72**	-0.23	-0.29*	0.34**	0.25*	0.43**	0.06	0.47**
PODS PER PLANT	0.42**	0.33**	0.03	0.40**	-0.14	0.36**	-0.34**	0.33**
100 SEED WEIGHT	0.35**	0.01	0.15	0.47**	0.37**	0.34**	0.19	0.16
QUALITY OF SEED	0.09	-0.13	0.11	0.15	-0.13	0.25*	0.16	0.15

TABLE 201 EXPERIMENT 372 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
8	JUPITER	1.00	134.25	66.90	22.08	2.25
13	DAVIS	1.75	121.50	34.98	20.73	2.00
16	COLUMBUS	2.25	88.00	42.70	16.14	2.00
11	CLARK 63	1.00	142.25	63.13	20.73	2.00
10	WILLIAMS	2.00	131.00	25.05	21.50	1.50
1	CALLAND	1.75	96.50	43.58	22.46	1.50
7	CUTLER 71	2.00	114.00	34.15	19.96	2.75
3	BRAGG	1.25	108.25	29.45	14.44	2.50
14	IMPROVED PELICAN	1.00	82.25	72.23	15.89	1.00
15	FORREST	1.25	98.00	42.53	16.82	2.25
4	RANSOM	1.00	74.50	30.00	16.10	2.50
2	WOODWORTH	2.00	101.50	44.80	16.46	1.75
5	HILL	1.25	70.00	47.53	21.24	1.75
12	COBB	1.25	62.50	24.05	17.63	1.50
6	PICKETT 71	2.00	61.75	27.15	21.08	2.25
9	BOSSIER	2.00	48.50	29.43	17.59	2.00
	GRAND MEAN	1.55	95.92	41.10	18.80	1.97
	STANDARD ERROR OF A VARIETY MEAN	0.17	12.50	1.65	0.46	0.30
	COEFFICIENT OF VARIATION	21.72%	26.06%	8.01%	4.84%	30-11%
5%	LSD VARIETY MEANS (**=***=NS)	0.48	35.60	4.69	1.30	0.84
	C O R R E L A T I O N S	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)
	YIELD KG/HA	-0.10	0.72++	0.42++	0.35++	0.09
	DAYS TO FLOWER	-0.10	-0.23	0.33++	0.01	-0.13
	DAYS TO MATURITY	-0.24	-0.29+	0.03	-0.15	0.11
	NODULE NUMBER 1	-0.26+	0.34++	0.40++	0.47++	0.15
	NODULE NUMBER 2	0.31+	0.25+	-0.14	0.37++	-0.13
	NODULE WEIGHT 1	-0.26+	0.43++	0.36++	0.34++	0.25+
	NODULE WEIGHT 2	0.42++	0.06	-0.34++	0.34++	0.16
	PLANT HEIGHT	-0.16	0.47++	0.76++	0.19	-0.21
	LODGING	-0.12	0.23	0.33++	0.16	0.15
	SHATTER	1.00	-0.03	-0.42++	-0.09	0.00
	PLANTS HARVEST	-0.03	1.00	0.30+	0.31+	0.05
	PODS PER PLANT	-0.42++	0.30+	1.00	0.10	-0.18
	100 SEED WEIGHT	0.09	0.31+	0.10	1.00	-0.01
	QUALITY OF SEED	0.00	0.05	-0.18	-0.01	1.00

TABLE 202 EXPERIMENT 370 YEAR 1976

REGION - SOUTH AMERICA
 SITE - LIMA
 LATITUDE - 12 DEG. 5 MIN. S
 COOPERATORS - JOSE BRUNO, RUFINO MONTALVO
 DATE PLANTED - JANUARY 27, 1977
 SOIL TYPE - SAND 50.2%, SILT 26%, CLAY 23.8%, PH 7.8
 AMOUNT OF MOISTURE - 302 MM
 NUMBER OF IRRIGATIONS - 5 (300 MM)

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	NODULE NUMBER 1	NODULE NUMBER 2	NODULE WEIGHT 1	NODULE WEIGHT 2	PLANT HEIGHT	LOGGING															
					DAVIS	JUPITER	FORREST	IMPROVED PELICAN	CALLAND	CLARK 63	PICKETT 71	HILL	RANSOM	CUTLER 71	COBB	COLUMBUS	WILLIAMS	WOODWORTH	BRAGG	BOSSIER					
13	3358.59	31.00	9.500	0.00	186.75	0.00	2.75	29.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
8	3283.99	35.50	123.00	0.00	165.50	0.00	2.75	67.25	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50						
15	2847.24	31.50	91.50	0.00	164.25	0.00	2.50	29.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
14	2774.30	37.00	96.25	0.00	104.00	0.00	1.25	67.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
1	2627.61	30.00	9.350	0.00	168.50	0.00	2.50	34.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
11	2511.75	31.00	88.00	0.00	118.50	0.00	1.50	39.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
6	2400.90	30.00	90.00	0.00	152.25	0.00	2.50	23.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
5	2262.54	33.50	89.50	0.00	98.25	0.00	1.50	29.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
4	2226.70	30.00	89.75	0.00	217.25	0.00	2.75	25.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
7	2120.42	31.50	90.00	0.00	171.50	0.00	2.25	40.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
12	2031.66	31.50	92.50	0.00	123.25	0.00	1.50	29.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
16	1995.40	31.00	76.25	0.00	144.75	0.00	2.00	31.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
10	1984.56	30.50	88.00	0.00	157.25	0.00	2.00	35.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
2	1680.34	31.00	82.00	0.00	131.75	0.00	1.75	33.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
3	1467.38	30.00	89.00	0.00	128.50	0.00	1.00	23.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
9	1247.33	30.00	88.00	0.00	156.25	0.00	1.50	19.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
GRAND MEAN		31.56	91.41	0.00	149.28	0.00	2.00	34.95	1.03																
STANDARD ERROR OF A VARIETY MEAN		185.78	0.64	3.80	0.00	27.38	0.00	0.40	2.83	0.07															
COEFFICIENT OF VARIATION		16.15%	4.04%	8.31%	0.00%	36.68%	0.00%	40.23%	16.21%	14.00%															
5 X LST VARIETY MEANS (*****=NS)		529.17	1.81	10.82	0.00	*****	0.00	1.15	8.07	0.21															
CORRELATIONS												(+ - PROB=-.05	++ - PROB=-.01)												
YIELD												KG/HA	0.31+												
DAYS TO FLOWER												1.00	0.23												
DAYS TO MATURITY												0.28+	0.31+												
NODULE NUMBER 1												0.38++	0.38++												
NODULE NUMBER 2												0.41++	0.41++												
NODULE WEIGHT 1												0.00	0.23												
NODULE WEIGHT 2												-0.16	0.00												
PLANT HEIGHT												1.00	-0.00												
LOGGING												0.00	0.00												
SHATTER												0.00	0.00												
PLANTS HARVEST												-0.10	0.19												
PODS PER PLANT												0.58++	0.65++												
100 SEED WEIGHT												-0.55++	-0.03												
QUALITY OF SEED												-0.11	-0.29++												

TABLE 202 EXPERIMENT 370 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
13	DAVIS	1.00	207.00	33.75	17.00	1.00
8	JUPITER	1.00	191.50	82.50	17.00	1.00
15	FORREST	1.00	170.00	29.25	15.25	1.00
14	IMPROVED PELICAN	1.00	133.50	48.00	12.25	1.00
1	CALLAND	1.00	168.75	21.25	20.50	2.00
11	CLARK 63	1.00	200.00	21.00	17.25	2.00
6	PICKETT 71	1.00	153.25	25.00	17.75	1.75
5	HILL	1.00	158.50	26.50	15.50	1.25
4	RANSOM	1.00	191.50	22.25	17.00	2.00
7	CUTLER 71	1.00	196.25	23.25	19.00	1.75
12	COBB	1.00	152.50	26.75	16.75	1.00
16	COLUMBUS	1.00	136.25	24.50	17.25	1.50
10	WILLIAMS	1.00	174.50	18.25	19.25	1.75
2	WOODWORTH	1.00	177.00	17.00	15.00	1.00
3	BRAGG	1.00	196.50	14.75	18.75	1.50
9	BOSSIER	1.00	122.00	19.25	16.75	2.00
GRAND MEAN						
STANDARD ERROR OF A VARIETY MEAN						
COEFFICIENT OF VARIATION						
5% 1ST VARIETY MEANS (*****=NS)						
CORRELATIONS (+ - PROB=.05)						
+ + - PROB=.01)						
YIELD	KG/HA	0.00	0.45++	0.58++	0.01	-0.11
DAYS TO FLOWER	0.00	-0.10	0.70++	-0.55++	-0.45++	
DAYS TO MATURITY	0.00	0.19	0.65++	-0.03	-0.29+	
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00	
NODULE NUMBER 2	0.00	0.16	0.10	0.27+	0.25+	
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00	
NODULE WEIGHT 2	0.00	0.09	0.27+	0.19	0.10	
PLANT HEIGHT	0.00	0.05	0.76++	-0.30+	-0.26+	
LODGING	0.00	0.04	0.56++	-0.00	-0.17	
SHATTER	1.00	0.00	0.00	0.00	0.00	
PLANTS HARVEST	0.00	1.00	0.03	0.28+	0.09	
PODS PER PLANT	0.00	0.03	1.00	-0.24	-0.34++	
100 SEED WEIGHT	0.00	0.28+	-0.24	1.00	0.51++	
QUALITY OF SEED	0.00	0.09	-0.34++	0.51++	1.00	

TABLE I. EXPERIMENT 190. YEAR 1976

REGION - SOUTH AMERICA	COUNTRY - URUGUAY
SITE - TACUAREMBO	ELEVATION - 120 M
LATITUDE - 31 DEG. 42 MIN. S	LONGITUDE - 55 DEG. 39 MIN. W
COOPERATOR - LUIS AMENDOLA	DATE HARVESTED - MARCH, 1977
DATE PLANTED - DECEMBER 1, 1976	
SOIL TYPE - SAND 62%, SILT 18%, CLAY 20%, PH 4.6	
FERTILIZER USED (KG/HA) - N 30.0, P 45.0, K 30.0	
AMOUNT OF MOISTURE - 790 MM	

ENTRY NUMBER	VARIETY OR CROSS	YIELD KG./HA	DAKS TO FLOWER	DAKS TO MATURITY	DAKS TO MATURITY	NUMBER 1	NUMBER 2	MODULE NUMBER 1	MODULE NUMBER 2	MODULE WEIGHT 1	MODULE WEIGHT 2	PLANT HEIGHT	LOGGING
3	BRAGG	4170.83	59.00	150.00	58.75	0.00	0.55	0.00	0.83	0.00	112.73	4.25	
9	WILLIAMS	3777.01	38.00	109.00	98.00	0.00	0.83	0.00	0.83	0.00	96.23	1.00	
14	FORREST	3744.92	59.00	141.00	28.50	0.00	0.37	0.00	0.37	0.00	109.73	5.00	
4	RANSOM	3729.91	59.00	155.00	63.50	0.00	0.42	0.00	0.42	0.00	101.20	2.75	
12	DAVIS	3601.97	72.00	141.00	40.50	0.00	0.51	0.00	0.51	0.00	107.30	3.00	
2	WOODWORTH	3519.04	38.00	99.00	78.75	0.00	0.57	0.00	0.57	0.00	91.27	1.00	
11	COBB	3281.07	72.00	148.00	19.25	0.00	0.24	0.00	0.24	0.00	111.65	1.75	
10	CLARK 63	3267.32	38.00	109.00	101.75	0.00	0.84	0.00	0.84	0.00	100.43	1.00	
15	COLUMBUS	3253.98	43.00	130.00	133.00	0.00	1.16	0.00	1.16	0.00	103.95	1.50	
16	ESSEX	3194.81	50.00	141.00	43.25	0.00	0.49	0.00	0.49	0.00	92.92	2.75	
6	PICKETT 71	3124.37	66.00	141.00	13.50	0.00	0.14	0.00	0.14	0.00	93.50	3.50	
1	CALLAND	3101.87	38.00	109.00	59.00	0.00	0.67	0.00	0.67	0.00	99.47	1.00	
8	BOSSIER	3060.20	72.00	151.25	24.25	0.00	0.27	0.00	0.27	0.00	112.78	3.75	
5	HILL	2977.26	59.00	130.00	21.50	0.00	0.14	0.00	0.14	0.00	99.30	3.75	
7	CUTLER 71	2973.51	38.00	109.00	86.25	0.00	0.80	0.00	0.80	0.00	96.15	1.00	
13	IMPROVED PELICAN	2176.27	72.00	166.00	5.50	0.00	0.05	0.00	0.05	0.00	120.45	2.75	
GRAND MEAN													
STANDARD ERROR OF A VARIETY MEAN													
COEFFICIENT OF VARIATION													
5% LSD VARIETY MEANS (*****NS)													
CORRELATIONS													
(+ - PROB=.05 ++ - PROB=.01)													
YIELD	KG./HA	1.00	-0.14	-0.12	0.28+	0.00	0.29+	0.00	0.62++	0.00	0.00	-0.12	0.10
DAKS TO FLOWER		-0.14	1.00	-0.88++	-0.69++	0.00	-0.62++	0.00	-0.50++	0.00	0.00	0.56++	0.63++
DAKS TO MATURITY		-0.12	0.88++	1.00	-0.55++	1.00	-0.55++	0.00	-0.86++	0.00	0.00	0.59++	0.65++
MODULE NUMBER 1		0.28+	-0.69++	-0.55++	1.00	0.00	1.00	0.00	0.00	0.00	0.00	-0.31+	-0.49++
MODULE NUMBER 2		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MODULE WEIGHT 1		0.29+	-0.62++	-0.50++	-0.86++	0.00	1.00	0.00	0.00	0.00	0.00	-0.20	-0.42++
MODULE WEIGHT 2		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLANT HEIGHT		-0.12	0.56++	0.59++	-0.31+	0.00	-0.20	0.00	0.00	0.00	0.00	0.38++	0.38++
LOGGING		0.10	0.63++	0.65++	-0.49++	0.00	-0.42++	0.00	0.00	0.00	0.00	0.38++	0.38++
SHATTER		-0.57++	-0.33++	0.43++	-0.30+	0.00	-0.32+	0.00	0.00	0.00	0.00	0.46++	0.50++
HARVEST		0.15	-0.31+	-0.38++	-0.09	0.02	0.00	0.00	0.00	0.00	0.00	-0.41++	-0.12
PLANTS PER PLANT		0.01	0.82++	0.76++	-0.68++	0.00	-0.53++	0.00	0.00	0.00	0.00	0.54++	0.78++
PODS PER 100 SEED		0.44++	-0.50++	-0.42++	0.57++	0.00	-0.55++	0.00	0.00	0.00	0.00	-0.14	-0.50++
QUALITY OF SEED		-0.33++	0.12	0.19	-0.26++	0.00	-0.18	0.00	0.00	0.00	0.00	0.31+	-0.07

TABLE 203 EXPERIMENT 190 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	BRAGG	1.00	279.50	56.50	22.22	2.25
9	WILLIAMS	1.00	307.25	23.38	22.08	1.00
14	FORREST	1.00	266.25	68.32	16.47	3.75
4	RANSOM	1.00	264.50	38.92	20.39	2.00
12	DAVIS	1.00	287.75	46.75	19.93	1.75
2	WOODWORTH	1.00	311.25	22.47	18.71	2.75
11	COBB	1.00	251.25	60.80	19.19	5.00
10	CLARK 63	1.00	286.75	26.78	20.52	3.25
15	COLUMBUS	1.00	273.00	29.55	19.95	2.00
16	ESSEX	1.00	282.25	43.22	17.04	3.50
6	PICKETT 71	1.00	307.00	54.32	16.06	1.25
1	CALLAND	1.00	297.25	22.92	21.48	3.00
8	BOSSIER	1.00	182.50	58.12	17.98	1.00
5	HILL	1.00	345.25	55.92	15.95	2.00
7	CUTLER 71	1.00	243.00	24.97	21.80	2.50
13	IMPROVED PELICAN	2.00	266.25	59.37	16.05	5.00
	GRAND MEAN	1.06	278.19	43.27	19.11	2.63
	STANDARD ERROR OF A VARIETY MEAN	0.00	7.82	2.65	0.39	0.29
	COEFFICIENT OF VARIATION	0.00%	5.62%	12.25%	4.04%	22.45%
	5% LSD VARIETY MEANS (*****=NS)	0.00	22.27	7.55	1.10	0.84
	CORRELATIONS	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.05	(+ - PROB=.01)
	YIELD KG/HA	-0.57++	0.15	-0.01	0.44++	-0.33++
	DAYS TO FLOWER	0.33++	-0.31+	0.82++	-0.50++	0.12
	DAYS TO MATURITY	0.43++	-0.38++	0.76++	-0.42++	0.19
	NODULE NUMBER 1	-0.30+	0.09	-0.68++	0.57++	-0.26+
	NODULE NUMBER 2	0.00	0.00	0.00	0.00	0.00
	NODULE WEIGHT 1	-0.32+	0.02	-0.53++	0.55++	-0.18
	NODULE WEIGHT 2	0.00	0.00	0.00	0.00	0.00
	PLANT HEIGHT	0.46++	-0.41++	0.54++	-0.14	0.31+
	LODGING	0.05	-0.12	0.78++	-0.50++	-0.07
	SHATTER	1.00	-0.08	0.25+	-0.34++	0.47++
	PLANTS HARVEST	-0.08	1.00	-0.22	-0.10	-0.07
	PODS PER PLANT	0.25+	-0.22	1.00	-0.55++	0.24
	100 SEED WEIGHT	-0.34++	-0.10	-0.55++	1.00	-0.24
	QUALITY OF SEED	0.47++	-0.07	0.24	-0.24	1.00

TABLE 204 EXPERIMENT 152 YEAR 1976

REGION - SOUTH AMERICA
 SITE - TREINTA Y TRES
 LATITUDE - 33 DEG. 18 MIN.
 COOPERATOR - MIGUEL A. BELL
 DATE PLANTED - NOVEMBER 1
 SOIL TYPE - CLAY, PH 5.8
 FERTILIZER USED (KG/HA) -
 AMOUNT OF MOISTURE - 900
 NUMBER OF IRRIGATIONS - 1
 LOCAL VARIETY - CTS-18

COUNTRY - URUGUAY
ELEVATION - 31 M
LONGITUDE - 55 DEG
DATE HARVESTED -

DATE HARVESTED - APRIL 1977

SOIL TYPE - CLAY, PH 5.8

AMOUNT OF NOLISTUBE = 900 MM
AMOUNT OF FERTILIZER USED = 30.0, P 35.2

AMOUNT OF PULSURE - 900 MM
NUMBER OF IRRIGATIONS - 1 (50 MM)
LOCAL VARIETY - CTS-18

TABLE 204 EXPERIMENT 152 YEAR 1976 (CONTINUED)

ENTRY NUMBER	VARIETY OR CROSS	SHATTER	PLANTS HARVEST	PODS PER PLANT	100 SEED WEIGHT	QUALITY OF SEED
3	BRAGG	1.00	180.50	43.25	19.43	1.00
4	RANSOM	1.00	160.00	47.00	19.33	1.50
6	PICKETT 71	1.00	151.25	55.25	14.88	1.00
12	FORREST	1.00	142.00	49.50	16.68	1.00
16	CTS-18	1.00	161.75	55.00	16.88	2.75
11	DAVIS	1.00	157.25	41.50	17.23	1.00
15	COLUMBUS	1.00	149.50	30.25	21.10	4.25
5	HILL	1.00	160.50	51.50	16.10	2.75
1	CALLAND	1.00	177.00	19.00	23.08	4.50
8	BOSSIER	1.00	74.25	68.50	17.40	1.25
9	WILLIAMS	1.00	164.50	19.25	21.28	2.25
7	CUTLER 71	1.00	134.25	26.50	20.80	3.25
10	CLARK 63	1.00	169.50	24.25	19.85	3.00
2	WOODWORTH	1.00	170.25	24.50	17.43	3.25
14	BEESON	2.00	152.50	18.23	21.75	3.50
13	WELLS	1.00	155.75	17.75	18.20	4.25
	GRAND MEAN	1.06	153.80	36.95	18.84	2.53
	STANDARD ERROR OF A VARIETY MEAN	0.00	8.97	2.57	0.45	0.25
	COEFFICIENT OF VARIATION	0.00%	11.66%	13.93%	4.78%	20.13%
5%	LSD VARIETY MEANS (**NS=NS)	0.00	25.55	7.33	1.28	0.73

CORRELATIONS (+ - PROB=.05) (+ - PROB=.01)

YIELD KG/HA	-0.30+	0.19	0.56++	-0.19	-0.50++
DAYS TO FLOWER	-0.34++	-0.29+	0.88++	-0.58++	-0.77++
DAYS TO MATURITY	-0.34++	-0.27+	0.80++	-0.43++	-0.78++
NODULE NUMBER 1	0.00	0.00	0.00	0.00	0.00
NODULE NUMBER 2	-0.23	-0.33++	0.49++	-0.18	-0.33++
NODULE WEIGHT 1	0.00	0.00	0.00	0.00	0.00
NODULE WEIGHT 2	-0.20	-0.33++	0.35++	-0.13	-0.19
PLANT HEIGHT	-0.36++	-0.06	0.74++	-0.40++	-0.67++
LODGING	0.00	0.00	0.00	0.00	0.00
SHATTER	1.00	-0.01	-0.29+	0.31+	0.19
PLANTS HARVEST	-0.01	1.00	-0.46++	0.17	0.17
PODS PER PLANT	-0.29+	-0.46++	1.00	-0.64++	-0.63++
100 SEED WEIGHT	0.31+	0.17	-0.64++	1.00	0.53++
QUALITY OF SEED	0.19	0.17	-0.63++	0.53++	1.00

